3 0300 01020 6066

L
13
N4
vol.43
1904

33150

THE LIBRARY
HUMBOLDT STATE COLLEGE
ARCATA, CALIFORNIA

DISCARDED-LIBRARY
CAL POLY HUMBOLDT

Digitized by the Internet Archive
in 2025

https://archive.org/details/journalofproceed0043unse

NATIONAL EDUCATIONAL ASSOCIATION

Journal

OF

Proceedings and Addresses

OF THE

FORTY-THIRD ANNUAL MEETING

HELD AT

ST. LOUIS, MISSOURI

IN CONNECTION WITH

THE LOUISIANA PURCHASE EXPOSITION

JUNE 27-JULY 1

1904

1904
Published by the Association
SECRETARY'S OFFICE, WINONA, MINN.

PRINTED AT
THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILLINOIS

L
13
N4
vol.43
1904

CONTENTS

PAGE

Constitution 1
By-Laws 4
Act of Incorporation 4
Calendar of Meetings 6
Officers for 1903–4 8
Officers for 1904–5 12
Report of Treasurer 16
Report of Trustees 18

GENERAL SESSIONS

Journal of Proceedings 23
Minutes of Annual Meeting of Active Members 25
Report of Committee on Resolutions 30
Minutes of Meeting of Board of Directors for 1903–4 32
Minutes of Meeting of Board of Directors for 1904–5 38
Addresses of Welcome—*Carrington, Woodward, Soldan, Wells, Francis, Rogers, Chaplin* 43–54
Responses—*Harris, McIver* 55, 59
President's Address: The Need of a New Individualism—*Cook* . . . 62
Relation of the Church to Higher Education—*James* 68
Popular Education in England—*Atkin* 83
Educational Possibilities for the Country Child in the United States—*Kern* . . 89
Educational Needs of the South—*Phillips* 94
Education in the Philippines—*Bryan* 100
Our Educational Creed—*Snyder* 104
New Departure in Secondary Education—*Sheppard* 114
Education in the American Navy—*Goodrich* 120
Education in Porto Rico—*Lindsay* 127
Education of the Southern Negro—*Washington* 128
The Place of the Small College—*Gates* 134
Preparation of Teachers in Germany—*Bahlsen* 140
Why Teachers Should Organize—*Haley* 145
Limitations of the Superintendent's Authority and of the Teacher's Independence—*Gove* 152
Art Exhibits in the Exposition—*Ives* 157
Sculpture and Decoration at the Exposition—*Zolnay* 163
Architecture of the Exposition—*Zolnay* 167

DEPARTMENT OF SUPERINTENDENCE
(Atlanta Meeting, 1904)

Secretary's Minutes 173
Education at the Universal Exposition—
I. From the View-Point of the Chief of the Department—*Rogers* . . 179
II. Exhibit of the United States Bureau of Education—*Harris* . . . 183
III. Some City Exhibits: Their Purpose and Plan—
A. St. Louis—*Soldan* 184
B. City of New York—*Edson* 185

33150

Course of Study in Elementary Schools—
I. The Superintendent's Influence on the Course of Study—*Elson* . . 188
II. What Omissions Are Advisable in the Present Course of Study—*McMurry* 194
Discussion—*Mark, Phillips, Marsh* 202
Athletics and Collateral Activities in Secondary Schools—*Boynton* . . . 206
Herbert Spencer (A Symposium)—
I. Herbert Spencer and His Influence on Education—*Harris* . . . 214
II. Herbert Spencer's Four Famous Essays—*Cook* 223
III. Herbert Spencer's Individuality—*Sutton* 226
IV. Herbert Spencer as an Educational Force—*Winship* 230
V. Herbert Spencer as a Philosopher—*Rose* 231
Educational Principles for the South—*I, Dabney; II, McIver* . . . 235, 242
The Factory Child—*Evans* 244
The Ethical Element in Education—*Hill* 249
Administration and Supervision—
I. The Superintendent as a Man of Affairs—*Maxwell* 259
II. The Assistant to the Superintendent—*Miss Reynolds* 264
III. The Management of Special Departments—*Kendall* 271
Discussion—*Bass* 277
Extension of Public-School Privileges—
I. The Organization of a System of Evening Schools—*Balliet* . . . 278
II. Adult Education—*Leipziger* 284
III. University Extension for Teachers in Service—*Halsey* 294
IV. Vacation Schools, Playgrounds, and Recreation Centers—*Miss Whitney* . 298
Discussion—*Nelson* 303

ROUND TABLES

A. Round Table of State and County Superintendents—
Recognition of Certificates and Diplomas—*Wolfe* 306
Discussion—*Nash* 307
Increasing the Efficiency of Rural Schools—*Lefevre* 309
Consolidation of Schools—*Joyner* 313
Improvements in Course of Study and System of Grading—*Fall* . . 316
Higher Standards in the Employment of Teachers—*Venable, Brittain* 319, 320
Expert Supervision—*Hill* 321
B. Round Table of City Superintendents—
Expediency of Importing Teachers of Approved Merit—*Dutton* . . 322
Should Teachers Present Evidences of Increasing Scholarship—*Small* . 326
Discussion—*Van Sickle* 330

NATIONAL COUNCIL

Constitution 333
Officers and Members 335
Secretary's Minutes 338
The Lessons of the Exposition—*Rogers* 345
The Swedish Educational Exhibit—*Lagerstedt* 349
The Japanese Exhibit—*Matsumura* 354
Memorial Addresses—
William Bramwell Powell—*Cook* 361
Frank Alpine Hill—*Hatch* 365
Reuben S. Bingham—*Cooper* 368
Preliminary Report of Committee on Salaries, etc.—*Wright* 370

DEPARTMENTS OF KINDERGARTEN AND ELEMENTARY EDUCATION

Secretary's Minutes 379

JOINT SESSION

Address of Welcome—*Mrs. Lachmund* 381
The Kindergarten and the Elementary School as Illustrated in Their Exhibits—
I. From the Kindergarten Standpoint—*Miss Hill* 383
II. From the Standpoint of the School—*Gilbert* 389
Discussion—*Ellis* 395
The Philippine Teacher and the Philippine Educational Exhibit—*Hager* . . 396
The Kindergarten in Japan—*Miss Howe* 398
French and German Elementary Schools—*Farrington* 404
Kindergartens in Southern States and in Countries South of the United States—*Miss Waldo* 411

KINDERGARTEN DEPARTMENT

Greeting—*Madame Bondy* 415
Hygiene of the Kindergarten Child—*Burnham* 416
The Individual Child—*Miss Payne* 422
What is Kindergarten Discipline?—*Miss Miller* 427
Discussion—*Miss Harrison, Miss Lawson, Miss Merrill, et al.* 431
Value of Animal Pets in the Kindergarten—*Miss Harvey* 432

ELEMENTARY DEPARTMENT

Natural Activities of Children as Determining Industries in Early Education—I, *Miss Dopp;* II, *Hall;* III, *Harvey* 437, 443, 447
Avenues of Language-Expression in the Elementary School—I, *Chubb;* II, *Miss Long;* III, *Cooley* 452, 459, 464
A Filipino's View of Education in the Philippines—*Senora Zamora* 468

DEPARTMENT OF SECONDARY EDUCATION

Secretary's Minutes 473
What May Secondary Schools Learn from French Secondary Education?—*Lyttle* . 475
What May Secondary Schools Learn from German Secondary Education?—*Bolton* 478
Secret Fraternities in High Schools—*Morrison* 484
Discussion—*Schuyler, Johnson, Lyttle, et al.* 490
Modification of High School to Meet Twentieth-Century Demands—
I, *Brown;* II, *Bryan;* III, *Buck* 491, 496
Discussion—*Buchanan, et al* 495

ROUND TABLE CONFERENCES

I. English Conference—
English as an Art Study—*Schuyler* 502
Discussion of Report of Subcommittee on Course of Study—*Holland* . 505
Laboratory Method in English Composition—*Buck* 506
Discussion—*Bishop, Richeson, Miss Wilde, et al.* 508
II. Mathematics Conference—
What Study of Mathematics Is Needed for Practical Life?—*French* . . 510
What Mathematics Should Be in Every Secondary School Course?—*Tinsley* 514
What Mathematics Should the Physics Teacher Teach?—*Tower* . . 516
The Real Problem of the Teacher of Mathematics—*Cobb* . . . 518
Unification of Secondary Mathematics—*Comstock* 519
Discussion—*Chessin, Burrill, Howe, Hedrick, et al.* 521

III. Modern Language Conference—
Aim of Modern Language Study in our Secondary Schools—*Smith* . . 522
Discussion—*Moore* 524
Function of Grammar in the Teaching of Modern Language—*Aldrich* . 525
Discussion—*Wieland* 528
Rapid Reading in Teaching a Modern Language—*Johnson* . . . 528
Discussion—*Miss Brooks, Worden, Johnson* 531
Conversation in Teaching Modern Language—*Batt, Smith, Neal* . . 532
Illustrated Aids to the Teaching of a Modern Language—*Worden* . . 533
Discussion—*Moore, Gideon* 536

DEPARTMENT OF HIGHER EDUCATION

Secretary's Minutes 537
Coeducation—*Hall* 538
Coeducation in State Universities—*Jesse* 542
Advantages of the Co-ordinate (Annex) Method in Education—*Thwing* . . 547
Coeducation in Relation to Other Types of College Education for Women—
Angell 548
General Tendency of College Athletics—*Andrews* 549
Character in Athletics—*Faunce* 558
Effects of Athletics on the Morale of the College—*Strong* 564

DEPARTMENT OF NORMAL SCHOOLS

Secretary's Minutes 567
Child Psychology *versus* Adult Psychology in the Training of Teachers—I, *Hall;*
II, *Russell* 568, 571
Discussion—*Ellis* 575
Recent Investigations in Psychological Psychology—*Van Liew* 576
Out-of-Door Work in Geography—*Jefferson* 583
Discussion—*Ridgley, Miss Hastings* 588

DEPARTMENT OF MANUAL TRAINING

Secretary's Minutes 593
The Constructive Idea in Education—*Jackman* 594
Manual Training in Sweden—*Lidman* 600
Reports on Manual Training as Shown by Exhibits—
I. Exhibits from the Teachers College, New York City—*Miss Hyde* . . 603
II. Exhibits from Indianapolis, Ind.—*Bacon* 605
III. Exhibits from Pacific Coast—*Miss Dobbs* 607
IV. Exhibit from New York City—*Meleney* 610
V. Exhibits from the Bradley Polytechnic Institute—*Bennett* . . . 612
Manual-Training High Schools and Manual Training in High Schools—*Gilbert* . 614
Discussion—*Woodward* 619
What May Be Done for Manual Training in Country Schools?—*Bayliss* . . 623
Progress of the South, as Shown by Exhibits—*Ayres* 627

DEPARTMENT OF ART EDUCATION

Secretary's Minutes 631
Influence of a Great Exposition as an Art Educator—*Hopkins* 632
Influence of the Art School and Art Museum on Civic Life—*Wuerpel* . . . 637
The Republic of France—A Nation of Art—*Marduel* 643
Art Education for the People of Germany—*Bahlsen* 648
Art Education for the People—*Mrs. Riley* 654
Organization for Art Education in England—*Atkin* 659

Educational Influence of Public Outdoor Art—*Gay* 665
Education for Artistic Handicraft in Sweden—*Lidman* 667
Art Education for the American People, as Shown at the Exposition—*Miss Henkel* 670

DEPARTMENT OF MUSIC EDUCATION

Secretary's Minutes 675
President's Address—*Wetzell* 678
Primary Music Methods—*Mrs. Parr* 681
Rote-Singing and its Proper Place in the Public Schools—*Hodgdon* . . . 685
Music in the Public Schools as a Means of Culture—*Miss Robinson* . . . 692
Methods *versus* Results—*Pommer* 696
The Public-School Music Supervisor—*Nagel* 699
Report of Co-operative Committees on a High-School Music Course . . . 702

DEPARTMENT OF BUSINESS EDUCATION

Secretary's Minutes 709
President's Address: Old Wine in New Bottles—*Herrick* 710
Work of Private Commercial Schools, as Illustrated in the Exhibits—*Marshall* . 714
Discussion—*Spencer, Brown, Walker, James* 716
Resources of the United States, as Illustrated by the Exposition—*Miss Bronson* . 717
Review of the Report of the Committee of Nine—*Sheppard* 719
Report of the Committee of Nine, as Related to the General High School—*Parker* . 725
Report of the Committee of Nine: a Discussion—*Bishop* 730
Discussion—*Springer* 736

DEPARTMENT OF CHILD STUDY

Secretary's Minutes 737
The Diagnosis of the Capabilities of School Children—*MacMillan* . . . 738
Some Laboratory Investigations of Subnormal Children—*Miss Campbell* . . 744
Education of Atypical Children in Public Schools—*Groszmann* 754
Typical Child-Study Methods at the St. Louis Exhibit—*Monroe* 759
Questionnaire Methods of Child Study—*Chambers* 762
Laboratory Tests as a Means of Child Study—*Miss Williams* 770
Contributions of Zoölogical Psychology to Child Study—*Kline* 776
Unsolved Problems of Child Study and the Method of Their Attack—*Hall* . . 782
Methods of Teaching Child Study in Normal Schools—*Miss Buckbee* . . . 787

ROUND TABLE CONFERENCES

A. Round Table Conference on Child Study in Kindergarten and Primary Grades—
Topic: Comparison of Methods and Results in Child Study—
I. Introduction—*Miss Winchester* 791
II. Study of Children by Means of Their Hand-Work—*Miss Harrison* . . 792
III. Method of Child Study in the Kindergarten—*Miss Palmer* . . . 794
IV. Child Study in the Grades—*Horn* 797
B. Round Table Conference on Child Study in Grammar and Secondary Grades—
Topic: Waywardness in Children of from Ten to Eighteen Years—
I. Criminal Tendencies and the Juvenile Court—*Waddle* . . 797
II. Relation of the Home to the Wayward Child—*Chrisman* . . 800
Discussion—*Kline, Groszmann, Dexter, Miss Campbell* . . 801

DEPARTMENT OF PHYSICAL EDUCATION

Secretary's Minutes 803
Importance of Walking as a School Exercise—*Arnold* 804
Objects and Methods of Physical Training in Primary and Grammar Schools—
I. From the Standpoint of the General Teacher—*Chalmers* 807
II. From the Standpoint of the Physical Training Teacher—*Stecher* . . . 810

Object and Methods of Physical Training in Normal Schools—*Affleck* . . . 817
Objects and Methods of Physical Training in Colleges and Universities—*Jesse* . 822
Objects and Methods of Physical Training in High Schools—*Mrs. Ludlum* . . 827
Physical Training Exhibits of the Exposition—
I. In the Physical Training Department—*Miss Pohl* 832
II. In the Education Building—*Miss Mann* 836

DEPARTMENT OF SCIENCE INSTRUCTION

Secretary's Minutes 843
Comparative Study of the Methods of Science Instruction as Shown by Exhibits—*Bryan* 844
Nature and Educational Value of the Scientific Exhibits of High Schools and Colleges—*Knox* 849
Applied Geography, Illustrated from the Louisiana Purchase—*Clement* . . 853
Discussion—*Curtis* 857
The Microscope in the Biological Laboratory of the High School—*Thompson* . . 859
Discussion—*Coulter* 863
Subject-Matter of High-School Physics—*Foley* 865
Discussion—*Foerste* 871
Value of Chemistry in Secondary Education—*Blanchard* 872
Discussion—*Senter* 878
Teaching of the Scientific Method—*Forbes* 879
Nature Study as an Aid to Advanced Work in Science—*Whitney* 889
Discussion—*Caldwell* 894

DEPARTMENT OF SCHOOL ADMINISTRATION

Secretary's Minutes 897
Retrospective and Prospective School Administrations—*Hunsicker* . . . 897
The School Architecture of St. Louis—*Ittner* 901
Lessons in School Administration to Be Gained at the Exposition—*Woodward* . 907

LIBRARY DEPARTMENT

Secretary's Minutes 911
Library Work in Normal Schools—*Noss* 912
Discussion—*Miss Salisbury, Salisbury, Canfield* 917
Duty of the Normal School in Relation to District School Libraries—*Wilkinson* . 919
Discussion—*Miss Reynolds* 923
Place of the Library in School Instruction—*Meleney* 924
Discussion—*Miss Milner, Schaeffer, Cook, Crunden* 930

DEPARTMENT OF SPECIAL EDUCATION

Secretary's Minutes 933
President's Address—*Jones* 934
What Teachers May Learn from the Model School for the Deaf and Blind, and Their Exhibits—*Green* 937
Sight and Hearing in Relation to Education—*Chrisman* 939
Report of Committee on Statistics of Defective Sight and Hearing of Public-School Children—*Booth* 946
The Chicago Hospital School for Nervous and Delicate Children—*Miss Campbell* . 952

DEPARTMENT OF INDIAN EDUCATION

Secretary's Minutes 963
Addresses of Welcome—*Dockery, Francis, Rogers, Woodward, Soldan, Miss Fruchte, Glennon* 964–971

Responses—*McGee, Doyle, Chubbuck, McCowan* 972–976
Efficiency in the Indian Service—*Doyle* 977
Indian Music and Indian Education—*Miss Curtis* 979

ROUND TABLE CONFERENCES

Review and Discussion of Points Gained from the Educational Exhibits and the Model Schools of the Exposition—*Coppock, Nardin, Sinclair, Winslow, Campbell, Julian, McKoin, Miss Cook, Buntin, Hinshaw, McCowan, Lemmon, Wright* 982–985

Statistical Tables of Membership 986–987
Inventory and Price List of Publications 988
Reprints from the Annual Volumes of Proceedings 989
General Index 991

CONSTITUTION

OF THE

NATIONAL EDUCATIONAL ASSOCIATION

PREAMBLE

To elevate the character and advance the interests of the profession of teaching, and to promote the cause of popular education in the United States, we, whose names are subjoined, agree to adopt the following

CONSTITUTION

ARTICLE I—NAME

This Association shall be styled the NATIONAL EDUCATIONAL ASSOCIATION.

ARTICLE II—DEPARTMENTS

SECTION 1. It shall consist of eighteen departments: first, of Superintendence; second, of Normal Schools; third, of Elementary Education; fourth, of Higher Education; fifth, of Manual Training; sixth, of Art Education; seventh, of Kindergarten Education; eighth, of Music Education; ninth, of Secondary Education; tenth, of Business Education; eleventh, of Child Study; twelfth, of Physical Education; thirteenth, of Natural Science Instruction; fourteenth, of School Administration; fifteenth, the Library Department; sixteenth, of Special Education; seventeenth, of Indian Education; and eighteenth, the National Council of Education.

SEC. 2. Other departments may be organized in the manner prescribed in this constitution.

ARTICLE III—MEMBERSHIP

SECTION 1. There shall be three classes of members, namely, active, associate, and corresponding.

SEC. 2. Teachers and all who are actively associated with the management of educational institutions, including libraries and periodicals, may become active members. All others who pay an annual membership fee of two dollars may become associate members.

Eminent educators not residing in America may be elected by the Directory to be corresponding members. The number of corresponding members shall at no time exceed fifty.

SEC. 3. Any person eligible may become an active member upon application indorsed by two active members, and the payment of an enrollment fee of two dollars and the annual dues for the current year.

Active members only have the right to vote and to hold office in the general Association or in the several departments.

All active members must pay annual dues of two dollars, and will be entitled to the volume of *Proceedings* without "coupon" or other conditions. The annual membership fee shall be payable at the time of the annual convention, or by remittance to the Secre-

tary before September 1 of each year. Any active member may discontinue membership by giving written notice to the Secretary before September 1, and may restore the same only on payment of the enrollment fee of two dollars and the annual dues for the current year.

All life members and life directors shall be denominated active members, and shall enjoy all the powers and privileges of such members without the payment of annual dues.

Associate members may receive the volume of *Proceedings* in accordance with the usual "coupon" conditions, as printed on the membership certificate.

Corresponding members will be entitled to the volume of *Proceedings* without the payment of fees or other conditions.

SEC. 4. The names of active and corresponding members only will be printed in the volume of *Proceedings*, with their respective educational titles, offices, and addresses, the list to be revised annually by the Secretary of the Association.

ARTICLE IV—OFFICERS

SECTION 1. The officers of this Association shall consist of a President, twelve Vice-Presidents, a Secretary, a Treasurer, a Board of Directors, a Board of Trustees, and an Executive Committee, as hereinafter provided.

SEC. 2. The Board of Directors shall consist of the President of the National Educational Association, First Vice-President, Secretary, Treasurer, chairman of the Board of Trustees, and one additional member from each state, territory, or district, to be elected by the Association for the term of one year, or until their successors are chosen, and of all life directors elected previous to July 10, 1895.

All past Presidents of the Association now living (July 10, 1895), and all future Presidents at the close of their respective terms of office, and the United States Commissioner of Education, shall be life directors of the Association.

The President of the National Educational Association, First Vice-President, Treasurer, chairman of the Board of Trustees, and a member of the Association to be chosen annually by the Board of Directors, which member shall hold office for one year, shall constitute the Executive Committee.

SEC. 3. The elective officers of the Association, with the exception of the Secretary, shall be chosen by the active members of the Association by ballot, unless otherwise ordered, on the third day of each session, a majority of the votes cast being necessary for choice. They shall continue in office until the close of the annual session subsequent to their election, and until their successors are chosen, except as hereinafter provided.

SEC. 4. Each department shall be administered by a president, vice-president, secretary, and such other officers as it shall deem necessary to conduct its affairs; but no person shall be elected to any office of the Association, or of any department, who is not, at the time of the election, an active member of the Association.

SEC. 5. The President shall preside at all meetings of the Association and of the Board of Directors, and shall perform the duties usually devolving upon a presiding officer. In his absence, the First Vice-President in order, who is present, shall preside; and in the absence of all Vice-Presidents, a *pro-tempore* chairman shall be appointed on nomination, the Secretary putting the question.

SEC. 6. The Secretary shall keep a full and accurate report of the proceedings of the general meetings of the Association and all meetings of the Board of Directors, and shall conduct such correspondence as the directors may assign, and shall have his records present at all meetings of the Association and of the Board of Directors. The secretary of each department shall, in addition to performing the duties usually pertaining to his office, keep a list of the members of his department.

SEC. 7. The Treasurer shall receive, and under the direction of the Board of Trustees

hold in safe-keeping, all moneys paid to the Association; shall expend the same only upon the order of said board; shall keep an exact account of his receipts and expenditures, with vouchers for the latter, which accounts, ending the 1st day of July each year, he shall render to the Board of Trustees and, when approved by said board, he shall report the same to the Board of Directors. The Treasurer shall give such bond for the faithful discharge of his duties as may be required by the Board of Trustees; and he shall continue in office until the first meeting of the Board of Directors held prior to the annual meeting of the Association next succeeding that for which he is elected.

SEC. 8. The Board of Directors shall have power to fill all vacancies in their own body; shall have in charge the general interests of the Association, excepting those herein intrusted to the Board of Trustees; shall make all necessary arrangements for its meetings, and shall do all in its power to make it a useful and honorable institution. Upon the written application of twenty active members of the Association for permission to establish a new department, it may grant such permission. Such new department shall in all respects be entitled to the same rights and privileges as the others. The formation of such department shall in effect be a sufficient amendment to this constitution for the insertion of its name in Art. II, and the Secretary shall make the necessary alterations.

SEC. 9. The Board of Trustees shall consist of four members, elected by the Board of Directors for the term of four years, and the President of the Association, who shall be a member *ex officio* during his term of office. At the election of the trustees in 1886, one trustee shall be elected for one year, one for two years, one for three years, and one for four years; and annually thereafter, at the first meeting of the Board of Directors held prior to the annual meeting of the Association, one trustee shall be elected for the term of four years. All vacancies occurring in said Board of Trustees, whether by resignation or otherwise, shall be filled by the Board of Directors for the unexpired term; and the absence of a trustee from two successive annual meetings of the board shall forfeit his membership therein. The Board of Trustees thus elected shall constitute the body corporate of the Association, as provided in the certificate of incorporation under the provisions of the Act of General Incorporation, Class Third, of the Revised Statutes of the District of Columbia, dated the 24th day of February, 1886, at Washington, D. C., and recorded in Liber No. 4, "Acts of Incorporation for the District of Columbia."

SEC. 10. It shall be the duty of the Board of Trustees to provide for safe-keeping and investment of all funds which the Association may receive from donations; and the income of such invested funds shall be used exclusively in paying the cost of publishing the annual volume of *Proceedings* of the Association, excepting when donors shall specify otherwise. It shall also be the duty of the board to issue orders on the Treasurer for the payment of all bills approved by the Board of Directors, or by the President and Secretary of the Association acting under the authority of the Board of Directors; and, when practicable, the trustees shall invest all surplus funds exceeding one hundred dollars that shall remain in the hands of the Treasurer after paying the expenses of the Association for the previous year.

SEC. 11. The Board of Trustees shall elect the Secretary of the Association, who shall also be secretary of the Executive Committee, and shall fix the compensation and the term of office for a period not to exceed four years.

ARTICLE V—MEETINGS

SECTION 1. The annual meeting of the Association shall be held at such time and place as shall be determined by the Board of Directors.

SEC. 2. Special meetings may be called by the President at the request of five directors.

SEC. 3. Any department of the Association may hold a special meeting at such time and place as by its own regulations it shall appoint.

SEC. 4. The Board of Directors shall hold its regular meetings at the place and not less than two hours before the assembling of the Association.

SEC. 5. Special meetings may be held at such other times and places as the board or the President shall determine.

SEC. 6. Each new board shall organize at the session of its election. At its first meeting a committee on publication shall be appointed, which shall consist of the President and the Secretary of the Association for the previous year, and one member from each department.

ARTICLE VI—BY-LAWS

By-laws not inconsistent with this constitution may be adopted by a two-thirds vote of the Association.

ARTICLE VII—AMENDMENTS

This constitution may be altered or amended at a regular meeting by the unanimous vote of the members present; or by a two-thirds vote of the members present, provided that the alteration or amendment has been substantially proposed in writing at a previous meeting.

BY-LAWS

1. At the first session of each annual meeting of the Association there shall be appointed by the President a committee on resolutions; and at the third session of such meeting there shall be appointed a committee on nominations, consisting of one member from each state and territory represented, the same to be appointed by the President on the nomination of a majority of the active members from such state or territory present at the meeting called for the purpose of making such nomination; provided, however, that such appointment shall be made by the President without such nomination, when the active members in attendance from any state or territory shall fail to make a nomination.

The meetings of active members to nominate members of the nominating committee shall be held at 5:30 P. M. on the first day of the annual meeting of the Association, at such place as shall be announced in the general program.

2. The President and Secretary shall certify to the Board of Trustees all bills approved by the Board of Directors.

3. Each paying member of the Association shall be entitled to a copy of its *Proceedings*.

4. No paper, lecture, or address shall be read before the Association or any of its departments in the absence of its author, nor shall any such paper, lecture, or address be published in the volume of *Proceedings*, without the consent of the Association, upon approval of the Executive Committee.

5. It shall be the duty of the President, Secretary, and Treasurer of the Association to appoint annually some competent person to examine the securities of the Permanent Fund held by the Board of Trustees, and his certificate, showing the condition of the said fund, shall be attached to the report of the Board of Trustees.

ACT OF INCORPORATION

At a meeting of the Board of Directors of the National Educational Association, held at Saratoga Springs, N. Y., July 14, 1885, the following resolution was passed:

Resolved, That a committee of three be appointed to secure articles of incorporation for the National Educational Association, under United States or state laws, as speedily as may be.

N. A. Calkins, of New York; Thomas W. Bicknell, of Massachusetts; and Eli T. Tappan, of Ohio, were appointed such committee.

Under the authority of the resolution quoted above, and with the approval of the committee, and by competent legal advice, the chairman obtained a

CERTIFICATE OF INCORPORATION

We, the undersigned, Norman A. Calkins, John Eaton, and Zalmon Richards, citizens of the United States, and two of them citizens of the District of Columbia, do hereby associate ourselves together, pursuant to the provisions of the Act of General Incorporation, Class Third, of the Revised Statutes of the District of Columbia, under the name of the "National Educational Association," for the full period of twenty years, the purpose and objects of which are to elevate the character and advance the interests of the profession of teaching and to promote the cause of popular education in the United States. . . . . To secure the full benefit of said act we do here execute this our certificate of incorporation as said act provides.

In witness whereof, we severally set our hands and seals this 24th day of February, 1886, at Washington, D. C.

NORMAN A. CALKINS. [L. S.]
JOHN EATON. [L. S.]
ZALMON RICHARDS. [L. S.]

Duly acknowledged before Michael P. Callan, Notary Public in and for the District of Columbia, and recorded in Liber No. 4, Acts of Incorporation for the District of Columbia.

CALENDAR OF MEETINGS

NATIONAL TEACHERS' ASSOCIATION

1857.—PHILADELPHIA, PA. (Organized.)
James L. Enos, Chairman.
W. E. Sheldon, Secretary.

1858.—CINCINNATI, O.
Z. Richards, President.
J. W. Bulkley, Secretary.
A. J. Rickoff, Treasurer.

1859.—WASHINGTON, D. C.
A. J. Rickoff, President.
J. W. Bulkley, Secretary.
C. S. Pennell, Treasurer.

1860.—BUFFALO, N. Y.
J. W. Bulkley, President.
Z. Richards, Secretary.
O. C. Wight, Treasurer.

1861, 1862.—No session.

1863.—CHICAGO, ILL.
John D. Philbrick, President.
James Cruikshank, Secretary.
O. C. Wight, Treasurer.

1864.—OGDENSBURG, N. Y.
W. H. Wells, President.
David N. Camp, Secretary.
Z. Richards, Treasurer.

1865.—HARRISBURG, PA.
S. S. Greene, President.
W. E. Sheldon, Secretary.
Z. Richards, Treasurer.

1866.—INDIANAPOLIS, IND.
J. P. Wickersham, President.
S. H. White, Secretary.
S. P. Bates, Treasurer.

1867.—No session.

1868.—NASHVILLE, TENN.
J. M. Gregory, President.
L. Van Bokkelen, Secretary.
James Cruikshank, Treasurer

1869.—TRENTON, N. J.
L. Van Bokkelen, President.
W. E. Crosby, Secretary.
A. L. Barber, Treasurer.

1870.—CLEVELAND, O.
Daniel B. Hagar, President.
A. P. Marble, Secretary.
W. E. Crosby, Treasurer.

NAME CHANGED TO

NATIONAL EDUCATIONAL ASSOCIATION

1871.—ST. LOUIS, MO.
J. L. Pickard, President.
W. E. Crosby, Secretary.
John Hancock, Treasurer.

1872.—BOSTON, MASS.
E. E. White, President.
S. H. White, Secretary.
John Hancock, Treasurer.

1873.—ELMIRA, N. Y.
B. G. Northrop, President.
S. H. White, Secretary.
John Hancock, Treasurer.

1874.—DETROIT, MICH.
S. H. White, President.
A. P. Marble, Secretary.
John Hancock, Treasurer.

1875.—MINNEAPOLIS, MINN.
W. T. Harris, President.
M. R. Abbott, Secretary.
A. P. Marble, Treasurer.

1876.—BALTIMORE. MD.
W. F. Phelps, President.
W. D. Henkle, Secretary.
A. P. Marble, Treasurer.

1877.—LOUISVILLE, KY.
M. A. Newell, President.
W. D. Henkle, Secretary.
J. Ormond Wilson, Treasurer

1878.—No session.

1879.—PHILADELPHIA, PA.
John Hancock, President.
W. D. Henkle, Secretary.
J. Ormond Wilson, Treasurer

1880.—CHAUTAUQUA, N. Y.
J. Ormond Wilson, President.
W. D. Henkle, Secretary.
E. T. Tappan, Treasurer.

1881.—ATLANTA, GA.
James H. Smart, President.
W. D. Henkle, Secretary.
E. T. Tappan, Treasurer.

1882.—SARATOGA SPRINGS, N. Y.
G. J. Orr, President.
W. E. Sheldon, Secretary.
H. S. Tarbell, Treasurer.

1883.—SARATOGA SPRINGS, N. Y.
E. T. Tappan, President.
W. E. Sheldon, Secretary.
N. A. Calkins, Treasurer.

1884.—MADISON, WIS.
Thomas W. Bicknell, President.
H. S. Tarbell, Secretary.
N. A. Calkins, Treasurer.

1885.—SARATOGA SPRINGS, N. Y.
F. Louis Soldan, President.
W. E. Sheldon, Secretary.
N. A. Calkins, Treasurer.

1886.—TOPEKA, KAN.
N. A. Calkins, President.
W. E. Sheldon, Secretary.
E. C. Hewett, Treasurer.

1887.—CHICAGO, ILL.
W. E. Sheldon, President.
J. H. Canfield, Secretary.
E. C. Hewett, Treasurer.

1888.—SAN FRANCISCO, CAL.
Aaron Gove, President.
J. H. Canfield, Secretary.
E. C. Hewett, Treasurer.

1889.—NASHVILLE, TENN.
Albert P. Marble, President.
J. H. Canfield, Secretary.
E. C. Hewett, Treasurer.

1890.—ST. PAUL, MINN.
J. H. Canfield, President.
W. R. Garrett, Secretary.
E. C. Hewett, Treasurer.

1891.—TORONTO, ONT.
W. R. Garrett, President.
E. H. Cook, Secretary.
J. M. Greenwood, Treasurer.

1892.—SARATOGA SPRINGS, N. Y.
E. H. Cook, President.
R. W. Stevenson, Secretary.
J. M. Greenwood, Treasurer.

1893.—CHICAGO, ILL.
(International Congress of Education.)
Albert G. Lane, President.
Irwin Shepard, Secretary.
J. M. Greenwood, Treasurer.

1894.—ASBURY PARK, N. Y.
Albert G. Lane. President.
Irwin Shepard, Secretary.
J. M. Greenwood, Treasurer.

1895.—DENVER, COLO.
Nicholas Murray Butler, President.
Irwin Shepard, Secretary.
I. C. McNeill, Treasurer.

1896.—BUFFALO, N. Y.
Newton C. Dougherty, President.
Irwin Shepard, Secretary.
I. C. McNeill, Treasurer.

1897.—MILWAUKEE, WIS.
Charles R. Skinner, President.
Irwin Shepard, Secretary.
I. C. McNeill, Treasurer.

1898.—WASHINGTON, D. C.
J. M. Greenwood, President.
Irwin Shepard, Secretary.
I. C. McNeill, Treasurer.

1899.—LOS ANGELES, CAL.
E. Oram Lyte, President.
Irwin Shepard, Secretary.
I. C. McNeill, Treasurer.

1900.—CHARLESTON, S. C.
Oscar T. Corson, President.
Irwin Shepard, Secretary.
Carroll G. Pearse, Treasurer.

1901.—DETROIT, MICH.
James M. Green, President.
Irwin Shepard, Secretary.
L. C. Greenlee, Treasurer.

1902.—MINNEAPOLIS, MINN.
William M. Beardshear, President.
Irwin Shepard, Secretary.
Charles H. Keyes, Treasurer.

1903.—BOSTON, MASS.
Charles W. Eliot, President.
Irwin Shepard, Secretary.
W. M. Davidson Treasurer.

1904.—ST. LOUIS, MO.
John W. Cook, President.
Irwin Shepard, Secretary.
McHenry Rhoads, Treasurer.

NATIONAL EDUCATIONAL ASSOCIATION

OFFICERS FOR 1903–1904

GENERAL ASSOCIATION

JOHN W. COOK	*President*	De Kalb, Ill.
IRWIN SHEPARD	*Secretary*	Winona, Minn.
McHENRY RHOADS	*Treasurer*	Owensboro, Ky.

VICE-PRESIDENTS

CHARLES W. ELIOT, Cambridge, Mass.
EDWIN A. ALDERMAN, New Orleans, La.
J. W. SEARSON, Wahoo, Neb.
WILLIAM L. PRATHER, Austin, Tex.
GEORGE B. COOK, Hot Springs, Ark.
HENRY R. SANFORD, Penn Yan, N. Y.
GEORGE M. SMITH, VERMILION, S. D.
H. BREWSTER WILLIS, New Brunswick, N. J.
JAMES A. FOSHAY, Los Angeles, Cal.
FRANK. B. DYER, Cincinnati, O.
DELOS FALL, Albion, Mich.
MISS ELLOR E. CARLISLE, Boston, Mass.

BOARD OF TRUSTEES

(See *Art. IV, sec. 9, of the Constitution.*)

NEWTON C. DOUGHERTY	Peoria, Ill.	Term expires July, 1904
F. LOUIS SOLDAN	St. Louis, Mo.	Term expires July, 1905
NICHOLAS MURRAY BUTLER	New York, N. Y.	Term expires July, 1906
ALBERT G. LANE, *Chairman*	Chicago, Ill.	Term expires July, 1907
JOHN W. COOK	De Kalb, Ill.	*Ex-officio*

EXECUTIVE COMMITTEE

(See *Art. IV, secs. 2 and 11, of the Constitution.*)

JOHN W. COOK	*President*	De Kalb, Ill.
CHARLES W. ELIOT	*First Vice-President*	Cambridge, Mass.
McHENRY RHOADS	*Treasurer*	Owensboro, Ky.
ALBERT G. LANE	*Chairman of the Board of Trustees*	Chicago, Ill.
W. T. HARRIS,	*Member by election*	Washington, D. C.

IRWIN SHEPARD	Secretary	Winona, Minn.

BOARD OF DIRECTORS

Directors ex officio

(See *Art. IV., sec. 2, of the Constitution.*)

JOHN W. COOK, De Kalb, Ill.
CHARLES W. ELIOT, Cambridge, Mass.
McHENRY RHOADS, Owensboro, Ky.
ALBERT G. LANE, Chicago, Ill.
IRWIN SHEPARD, Winona, Minn.

Life Directors

(See *Art. IV, sec. 2, of the Constitution.*)

BICKNELL, THOMAS W., Providence, R. I.
BOARD OF EDUCATION, Nashville, Tenn.
BUTLER, NICHOLAS MURRAY, New York, N. Y.
CANFIELD, JAMES H., New York, N. Y.
COOK, E. H., Boulder, Colo.
CORSON, OSCAR T., Columbus, O.
DOUGHERTY, NEWTON C., Peoria, Ill.
ELIOT, CHARLES W., Cambridge, Mass.
GOVE, AARON, Denver, Colo.
GRAHAM, H. A., Mt. Pleasant, Mich.
GREEN, J. M., Trenton, N. J.
GREENWOOD, J. M., Kansas City, Mo.

Life Directors—*continued*

Harris, W. T., Washington, D. C.
Hunt, Mrs. Mary H., Boston, Mass.
Jewett, A. V., Abilene, Kan.
Lane, Albert G., Chicago, Ill.
Lyte, Eliphalet Oram, Millersville, Pa.
Marble, Albert P., New York, N. Y.
Marshall, T. Marcellus, Glenville, W. Va.
Parker, Charles I., South Chicago, Ill.
Phelps, W. F., Duluth, Minn.
Pickard, Josiah L., Brunswick, Me.
Pike, Joshua, Jerseyville, Ill.
Skinner, Charles R., Albany, N. Y.
Soldan, F. Louis, St. Louis, Mo.
Stratton, C. C., University Park, Ore.
Taylor, A. R., Decatur, Ill.
Teachers' Institute, Philadelphia, Pa.
White, Charles G., Lake Linden, Mich.
Wilson, J. Ormond, Washington, D. C.

Directors by Election

North Atlantic Division

Maine	John S. Locke	Saco
New Hampshire	Channing Folsom	Dover
Vermont	Walter E. Ranger	Montpelier
Massachusetts	Louis P. Nash	Holyoke
Rhode Island	Walter Ballou Jacobs	Providence
Connecticut	Charles H. Keyes	Hartford
New York	Augustus S. Downing	New York
New Jersey	John Enright	Freehold
Pennsylvania	John W. Lansinger	Millersville

South Atlantic Division

Delaware	George W. Twitmyer	Wilmington
Maryland	M. Bates Stephens	Baltimore
District of Columbia	Alexander T. Stuart	Washington
Virginia	J. L. Jarman	Farmville
West Virginia	Miss Lucy Robinson	Wheeling
North Carolina	Miss Lydia A. Yates	Wilmington
South Carolina	W. K. Tate	Charleston
Florida	B. C. Graham	Tampa

South Central Division

Kentucky	S. L. Frogge	Frankfort
Tennessee	D. J. Johns, Jr	Nashville
Georgia	W. F. Slaton	Atlanta
Alabama	John W. Abercrombie	Montgomery
Mississippi	E. E. Bass	Greenville
Louisiana	Warren Easton	New Orleans
Texas	A. Caswell Ellis	Austin
Oklahoma	Andrew R. Hickam	Alva
Arkansas	J. H. Hinemon	Little Rock
Indian Territory	John D. Benedict	Muskogee

North Central Division

Ohio	W. H. Kirk	East Cleveland
Indiana	T. A. Mott	Richmond
Illinois	Miss Catharine Goggin	Chicago
Michigan	D. W. Springer	Ann Arbor
Wisconsin	L. D. Harvey	Menomonie
Iowa	A. V. Storm	Cherokee
Minnesota	W. F. Kunze	Red Wing
Missouri	Ben Blewett	St. Louis
North Dakota	W. E. Hoover	Park River
South Dakota	George W. Nash	Pierre
Nebraska	E. J. Bodwell	Omaha
Kansas	J. W. Spindler	Winfield

Western Division

Montana	Oscar J. Craig	Missoula
Wyoming	Miss Estelle Reel	Washington, D. C.
Colorado	Lewis C. Greenlee	Denver
New Mexico	A. B. Stroup	Albuquerque

Directors by Election—*continued*

Arizona	A. J. MATTHEWS	Tempe
Utah	W. J. KERR	Logan
Nevada	J. E. STUBBS	Reno
Idaho	MISS MAY L. SCOTT	Boise
Washington	FRANK B. COOPER	Seattle
Oregon	E. D. RESSLER	Monmouth
California	LYMAN GREGORY	Los Angeles

DEPARTMENT OFFICERS

National Council

FRANK A. FITZPATRICK	*President*	Boston, Mass.
JOSEPH SWAIN	*Vice-President*	Swarthmore, Pa.
JAMES H. VAN SICKLE	*Secretary*	Baltimore, Md.
RICHARD G. BOONE	*Executive Committee*	Yonkers, N. Y.
NICHOLAS MURRAY BUTLER	*Executive Committee*	New York, N. Y.
MISS ANNA TOLMAN SMITH	*Executive Committee*	Washington, D. C.

Kindergarten

MISS JENNY B. MERRILL	*President*	New York, N. Y.
MRS. MARGARET J. STANNARD	*Vice-President*	Boston, Mass.
MRS. O. S. CHITTENDEN	*Secretary*	Omaha, Neb.

Elementary

MISS ADA VAN STONE HARRIS	*President*	Rochester, N. Y.
CALVIN N. KENDALL	*Vice-President*	Indianapolis, Ind.
MISS EMMA G. OLMSTEAD	*Secretary*	Potsdam, N. Y.

Secondary

REUBEN POST HALLECK	*President*	Louisville, Ky.
WILBUR FISK GORDY	*First Vice-President*	Hartford, Conn.
WILLIAM H. SMILEY	*Second Vice-President*	Denver, Colo.
WILLIAM SCHUYLER	*Secretary*	St. Louis, Mo.

Higher

BENJAMIN IDE WHEELER	*President*	Berkeley, Cal.
GEORGE HARRIS	*Vice-President*	Amherst, Mass.
JOHN H. MACCRACKEN	*Secretary*	New York, N. Y.

Normal

LEWIS H. JONES	*President*	Ypsilanti, Mich.
GRANT KARR	*Vice-President*	Oswego, N. Y.
MISS MONTANA HASTINGS	*Secretary*	Kirksville, Mo.

Superintendence

HENRY P. EMERSON	*President*	Buffalo, N. Y.
EDWIN B. COX	*First Vice-President*	Xenia, O.
JOHN W. ABERCROMBIE	*Second Vice-President*	University, Ala.
JOHN H. HINEMON	*Secretary*	Little Rock, Ark.

Manual

ARTHUR H. CHAMBERLAIN	*President*	Pasadena, Cal.
CHARLES L. KIRSCHNER	*Vice-President*	New Haven, Conn.
FRANK M. LEAVITT	*Secretary*	Boston, Mass.

Art

JAMES FREDERICK HOPKINS	*President*	Boston, Mass.
CHARLES M. CARTER	*Vice-President*	Denver, Colo.
MISS LILLIAN S. CUSHMAN	*Secretary*	Chicago, Ill.

Music

*STERRIE A. WEAVER	*President*	Westfield, Mass.
W. A. WETZELL	*Vice-President*	Salt Lake City, Utah
P. C. HAYDEN	*Secretary*	Keokuk, Ia.

* Died April 20, 1904.

Business

CHEESMAN A. HERRICK	*President*	Philadelphia, Pa.
H. B. BROWN	*Vice-President*	Valparaiso, Ind.
THOS. H. H. KNIGHT	*Secretary*	Boston, Mass.

Child Study

E. A. KIRKPATRICK	*President*	Fitchburg, Mass.
Miss JENNY B. MERRILL	*Vice-President*	New York, N. Y.
A. H. YODER	*Secretary*	Seattle, Wash.

Physical

E. HERMAN ARNOLD	*President*	New Haven, Conn.
Miss REBECCA STONEROAD	*Second Vice-President*	Washington, D. C.
Baroness ROSE POSSE	*Secretary*	Boston, Mass.

Science

WILBUR A. FISKE	*President*	Richmond, Ind.
FRANK M. GILLEY	*Vice-President*	Chelsea, Mass.
A. S. PEARSE	*Secretary*	Omaha, Neb.

School Administration

B. F. HUNSICKER	*President*	Reading, Pa.
GRAFTON D. CUSHING	*Vice-President*	Boston, Mass.
HARLAN P. FRENCH	*Chairman of Executive Committee*	Albany, N. Y.
WILLIAM GEORGE BRUCE	*Secretary*	Milwaukee, Wis.

Library

NATHAN C. SCHAEFFER	*President*	Harrisburg, Pa.
REUBEN POST HALLECK	*Vice-President*	Louisville, Ky.
Miss MARY EILEEN AHERN	*Secretary*	Chicago, Ill.

Special Education

J. W. JONES	*President*	Columbus, O.
F. W. BOOTH	*Vice-President*	Philadelphia, Pa.
Miss ELIZABETH VAN ADESTINE	*Secretary*	Detroit, Mich.

Indian Education

R. A. COCHRAN	*President*	Talklai, Arz.
H. B. PEAIRS	*Vice-President*	Lawrence, Kan.
Miss ESTELLE REEL	*Secretary*	Washington, D. C.

NATIONAL EDUCATIONAL ASSOCIATION

OFFICERS FOR 1904–1905

GENERAL ASSOCIATION

WILLIAM H. MAXWELL	*President*	New York, N. Y.
IRWIN SHEPARD	*Secretary*	Winona, Minn.
JAMES W. CRABTREE	*Treasurer*	Peru, Neb.

VICE-PRESIDENTS

John W. Cook, DeKalb, Ill.
C. P. Cary, Madison, Wis.
George B. Cook, Hot Springs, Ark.
J. N. Study, Fort Wayne, Ind.
J. M. H. Frederick, Lakewood, O.
Miss Alice M. Robertson, Muskogee, Ind. Ter.
E. H. Mark, Louisville, Ky.
Henry H. Swain, Dillon, Mont.
A. J. Matthews, Tempe, Ariz.
B. C. Caldwell, Natchitoches, La.
A. B. Poland, Newark, N. J.
Charles D. McIver, Greensboro, N. C.

BOARD OF TRUSTEES

(See *Art. IV, sec. 9, of the Constitution.*)

F. Louis Soldan	St. Louis, Mo.	Term expires July, 1905
Nicholas Murray Butler	New York, N. Y.	Term expires July, 1906
Albert G. Lane, *Chairman*	Chicago, Ill.	Term expires July, 1907
Newton C. Dougherty	Peoria, Ill.	Term expires July, 1908
William H. Maxwell	New York, N. Y.	*Ex officio*

EXECUTIVE COMMITTEE

(See *Art. IV, secs. 2 and 11, of the Constitution.*)

William H. Maxwell	*President*	New York, N. Y.
John W. Cook	*First Vice-President*	De Kalb, Ill.
James W. Crabtree	*Treasurer*	Peru, Neb.
Albert G. Lane	*Chairman of Board of Trustees*	Chicago, Ill.
W. T. Harris	*Member by election*	Washington, D. C.

Irwin Shepard	*Secretary*	Winona, Minn.

BOARD OF DIRECTORS

Directors ex officio

(See *Art. IV, sec. 2, of the Constitution.*)

William H. Maxwell, New York, N. Y.
John W. Cook, De Kalb, Ill.
James W. Crabtree, Peru, Neb.
Albert G. Lane, Chicago, Ill.
Irwin Shepard, Winona, Minn.

Life Directors

(See *Art, IV, sec. 2, of the Constitution.*)

Bicknell, Thomas W., Providence, R. I.
Board of Education, Nashville, Tenn.
Butler, Nicholas Murray, New York, N. Y.
Canfield, James H., New York, N. Y.
Cook, E. H., Boulder, Colo.
Cook, John W., De Kalb, Ill.
Corson, Oscar T., Columbus, O.
Jewett, A. V., Abilene, Kan.
Lane, Albert G., Chicago, Ill.
Lyte, Eliphalet Oram, Millersville, Pa.
Marble, Albert P., New York, N. Y.
Marshall, T. Marcellus, Glenville, W. Va.
Parker, Charles I., South Chicago, Ill.
Phelps, W. F., St. Paul. Minn.

Life Directors—*continued*

Dougherty, Newton C., Peoria, Ill.
Eliot, Charles W., Cambridge, Mass.
Gove, Aaron, Denver, Colo.
Graham, H. A., Mt. Pleasant, Mich.
Green, J. M., Trenton, N. J.
Greenwood, J. M., Kansas City, Mo.
Harris, W. T., Washington, D. C.
Hunt, Mrs. Mary H., Boston, Mass.
Pickard, Josiah L., Brunswick, Me.
Pike, Joshua, Jerseyville, Ill.
Skinner, Charles R., Albany, N. Y.
Soldan, F. Louis, St. Louis, Mo.
Stratton, C. C., University Park, Ore.
Taylor, A. R., Decatur, Ill.
Teachers' Institute, Philadelphia, Pa.
White, Charles G., Lake Linden, Mich.
Wilson, J. Ormond, Washington, D. C.

Directors by Election

North Atlantic Division

Maine	John S. Locke	Saco
New Hampshire	James E. Klock	Plymouth
Vermont	Walter E. Ranger	Montpelier
Massachusetts	Will S. Monroe	Westfield
Rhode Island	Walter Ballou Jacobs	Providence
Connecticut	Charles H. Keyes	Hartford
New York	Augustus S. Downing	Albany
New Jersey	John Enright	Freehold
Pennsylvania	John W. Lansinger	Millersville

South Atlantic Division

Delaware	George W. Twitmyer	Wilmington
Maryland	M. Bates Stephens	Baltimore
District of Columbia	Alexander T. Stuart	Washington
Virginia	Joseph L. Jarman	Farmville
West Virginia	Miss Lucy Robinson	Wheeling
North Carolina	Miss Lydia A. Yates	Wilmington
South Carolina	W. K. Tate	Charleston
Florida	Miss Clem Hampton	Gainesville

South Central Division

Kentucky	S. L. Frogge	Frankfort
Tennessee	D. J. Johns, Jr	Nashville
Georgia	W. F. Slaton	Atlanta
Alabama	Isaac W. Hill	Montgomery
Mississippi	Robert B. Fulton	University
Louisiana	Warren Easton	New Orleans
Texas	Alexander Hogg	Fort Worth
Oklahoma	Andrew R. Hickam	Alva
Arkansas	J. H. Hinemon	Little Rock
Indian Territory	John D. Benedict	Muskogee

North Central Division

Ohio	Edmund D. Lyon	Madisonville
Indiana	T. A. Mott	Richmond
Illinois	J. A. Mercer	Peoria
Michigan	William H. Elson	Grand Rapids
Wisconsin	L. D. Harvey	Menomonie
Iowa	A. V. Storm	Cherokee
Minnesota	W. F. Kunze	Red Wing
Missouri	Ben Blewett	St. Louis
North Dakota	W. E. Hoover	Park River
South Dakota	George W. Nash	Pierre
Nebraska	George L. Towne	Lincoln
Kansas	J. W. Spindler	Winfield

Western Division

Montana	Robert G. Young	Butte
Wyoming	Miss Estelle Reel	Washington, D. C.
Colorado	John F. Keating	Pueblo
New Mexico	Hugh A. Owen	Silver City

Directors by Election—*continued*

Arizona	A. J. MATTHEWS	Tempe.
Utah	A. C. NELSON	Salt Lake City
Nevada	J. E. STUBBS	Reno
Idaho	MISS MAY L. SCOTT	Boise
Washington	FRANK B. COOPER	Seattle
Oregon	E. D. RESSLER	Monmouth
California	ARTHUR H. CHAMBERLAIN	Pasadena

Dependencies

Alaska	MISS CASSIA PATTON	Sitka
Porto Rico	SAMUEL MCCUNE LINDSAY	San Juan
Hawaii	CHARLES B. DYKE	Honolulu
Philippine Islands	C. H. MAXSON	Iloilo, Panay

DEPARTMENT OFFICERS

National Council

ELMER E. BROWN	*President*	Berkeley, Cal.
NATHAN C. SCHAEFFER	*Vice-President*	Harrisburg, Pa.
J. W. CARR	*Secretary*	Anderson, Ind.
JAMES M. GREENWOOD	*Executive Committee*	Kansas City, Mo.
MISS ANNA TOLMAN SMITH	*Executive Committee*	Washington, D.C.
HOWARD J. ROGERS	*Executive Committee*	Albany, N. Y.

Kindergarten

MISS ANNA M. STOVALL	*President*	San Francisco, Cal.
MISS MARY JEAN MILLER	*Vice-President*	Marshalltown, Ia.
MISS ANNA ELISE HARBAUGH	*Secretary*	St. Louis, Mo.

Elementary

MISS N. CROPSEY	*President*	Indianapolis, Ind.
JAS. H. VAN SICKLE	*Vice-President*	Baltimore, Md.
MISS LIDA B. EARHART	*Secretary*	Whitewater, Wis.

Secondary

WILLIAM SCHUYLER	*President*	St. Louis, Mo.
JAMES H. VAN SICKLE	*First Vice-President*	Baltimore, Md.
JAMES SULLIVAN	*Second Vice-President*	New York, N. Y.
WILSON FARRAND	*Secretary*	Newark, N. J.

Higher

RICHARD H. JESSE	*President*	Columbia, Mo.
WILLIAM L. BRYAN	*Vice-President*	Bloomington, Ind.
JOSEPH SWAIN	*Secretary*	Swarthmore, Pa.

Normal

C. C. VAN LIEW	*President*	Chico, Cal.
JESSE D. BURKS	*Vice-President*	Paterson, N. J.
MISS ANNA BUCKBEE	*Secretary*	California, Pa.

Superintendence

E. G. COOLEY	*President*	Chicago, Ill.
LAWTON B. EVANS	*First Vice-President*	Augusta, Ga.
J. W. CARR	*Second Vice-President*	Anderson, Ind.
MISS ELIZABETH E. WHITNEY	*Secretary*	New York, N. Y.

Manual

ARTHUR H. CHAMBERLAIN	*President*	Pasadena, Cal.
CHARLES L. KIRSCHNER	*Vice President*	New Haven, Conn.
FRANK M. LEAVITT	*Secretary*	Roxbury, Mass.

Art

MRS. MATILDA EVANS RILEY	*President*	St. Louis, Mo.
FRANK COLLINS	*Vice-President*	New York, N. Y.
MISS STELLA TRUEBLOOD	*Secretary*	St. Louis, Mo.

Music

WM. A. WETZELL	*President*	Salt Lake City, Utah
MRS. MARIE BURT PARR	*Vice-President*	Cleveland, O.
P. C. HAYDEN	*Secretary*	Keokuk, Ia.

Business

W. C. STEVENSON	*President*	Decatur, Ill.
H. B. BROWN	*Vice-President*	Valparaiso, Ind.
JOHN ALFRED WHITE	*Secretary*	Moline, Ill.

Child Study

ELLSWORTH G. LANCASTER	*President*	Olivet, Mich.
D. P. MACMILLAN	*Vice-President*	Chicago, Ill.
MISS THEODATE L. SMITH	*Secretary*	Worcester, Mass.

Science

FRANK M. GILLEY	*President*	Chelsea, Mass.
ARTHUR G. CLEMENT	*Vice-President*	Albany, N. Y
H. A. SENTER	*Secretary*	Omaha, Neb.

Physical

E. HERMANN ARNOLD	*President*	New Haven, Conn.
MISS REBECCA STONEROAD	*Vice-President*	Washington, D. C.
G. B. AFFLECK	*Secretary*	Cedar Falls, Iowa.

School Administration

B. F. HUNSICKER	*President*	Reading, Pa.
GRAFTON D. CUSHING	*Vice-President*	Boston, Mass.
WILLIAM GEORGE BRUCE	*Secretary*	Milwaukee, Wis.
HARLAN P. FRENCH	*Chairman, Executive Committee*	Albany, N. Y.

Library

C. P. CARY	*President*	Madison, Wis.
J. N. WILKINSON	*Vice-President*	Emporia, Kan.
MISS MARY EILEEN AHERN	*Secretary*	Chicago, Ill.

Special Education

MISS MARGARET BANCROFT	*President*	Haddonfield, N. J.
J. H. FREEMAN	*Vice-President*	Jacksonville, Ill.
MISS ANNA E. SCHAFFER	*Secretary*	Madison, Wis.

Indian Education

[1]———	*President*	———
R. A. COCHRAN	*Vice-President*	Talklai, Ariz.
MISS ESTELLE REEL	*Secretary*	Washington, D. C.

[1] No Election.

TREASURER'S REPORT

TO THE

NATIONAL EDUCATIONAL ASSOCIATION

JULY 1, 1903, TO JUNE 30, 1904

FOR THE MEETING AT BOSTON, MASS., 1903, AND FOR THE ENSUING YEAR

McHenry Rhoads, Treasurer, in acct. with the National Educational Association

BALANCE ON HAND JULY 1, 1903			
Cash received from Treasurer Davidson, as per last annual report ...			$ 346.36
RECEIPTS			
From transportation lines:			
Account of Minneapolis meeting:			
Chicago, Milwaukee & St. Paul Railway	$ 455.00		
Chicago, Burlington & Quincy Railroad	391.00		
Chicago Great Western Railway	24.00		
Minneapolis & St. Louis Railroad	810.00		
Chicago, St. Paul, Minneapolis & Omaha Railway	395.00		
		$2,075.00	
Account of Boston meeting:			
New York, New Haven & Hartford Railroad	$21,458.00		
Boston & Maine Railroad	14,895.00		
New York Central & Hudson River Railroad	8,831.00		
Eastern Steamship Co	110.00		
Merchants & Miners Transportation Co	420.00		
		$45,714.00	
Total from transportation lines			$47,789.00
From Board of Trustees:			
Interest on Permanent Fund			6,573.98
From annual meeting (Boston):			
Advance memberships:			
Boston committee	$13,766.00		
New York committee	1,004.00		
		$14,770.00	
From registration bureau (Boston):			
Former active memberships	542.00		
New active memberships	1,947.00		
Associate memberships	4,839.00		
		7,328.00	
		$22,098.00	
Less refunds for duplicate payments of memberships		1,166.00	
Total from annual meeting			20,932.00
From memberships Atlanta meeting of Department of Superintendence			408.00
From Secretary's office during the year:			
Memberships, enrollments, etc.		4,292.00	
Sale of back volumes		831.62	
Sale of committee reports, etc.		200.22	
Exchange		19.22	
Royalty		78.35	
			5,421.41
Total receipts for the year			$81,470.75

DISBURSEMENTS

Board of Trustees:			
For permanent investment		$39,000.00	
For expenses (premiums and accrued interest on bonds, etc.)		1,418.98	
			$40,418.98
Executive Committee expenses:			
For President		$185.18	
For Treasurer		243.00	
For chairman, Board of Trustees		86.86	
For member by election		126.00	
			641.04
General Secretary's office:			
Salary of Secretary		$4,000.00	
Postage		1,303.55	
Telegrams		126.92	
Freight and express		61.25	
Clerical services		1,485.41	
Exchange		30.27	
Stationery and office supplies		180.20	
Traveling		267.57	
Office rent		600.00	
Miscellaneous (refunds, etc.)		97.00	
			8,152.17
Printing:			
Volumes of *Proceedings* (18,250 copies)		$11,791.80	
Reprints from volume		1,253.96	
Special reports		66.00	
Executive Committee bulletins		1,011.89	
Miscellaneous (letterheads, blanks, envelopes, circulars, programs, etc.)		609.90	
			14,674.15
Express and freight:			
Distribution of volumes		$5,341.45	
Miscellaneous (express and freight)		199.43	
			5,540.88
Special appropriations:			
Department of Superintendence		$73.60	
Committee on Economic Status of the Teacher		390.71	
Committee on Rural Schools		187.95	
Committee on Taxation		290.75	
Committee on Educational Doctrine		493.65	
			1,436.66
Annual Convention:			
Department expenses		$847.80	
State directors and managers		732.77	
Clerical services:			
Stenography and typewriting	$121.90		
Registration	1,152.83		
		1,274.73	
Badges		1,953.75	
Printing:			
Programs	$618.80		
Miscellaneous	194.00		
		812.80	
Express and freight		12.30	
Stationery		72.64	
Telegrams		9.73	
Expenses of speakers, Boston		10.00	
Conference meeting of department presidents, St. Louis		728.96	
Miscellaneous		188.90	
			6,644.38
Unclassified disbursements:			
Examining securities, bonds, Treasurer and Secretary, and auditing accounts		132.84	
Miscellaneous		315.36	
			448.20
Total disbursements for the year			$77,956.46

SUMMARY OF DISBURSEMENTS

Total amount transferred for investment (as per vouchers Nos. 92, 124, 154, 222)..	$39,000.00	
Total expenses as per vouchers Nos. 1 to 228, inclusive (except Nos. 92, 124, 154, 222).....	38,956.46	
Total amount paid out.....		$77,956.46

GENERAL SUMMARY

Total receipts.....	$81,470.75	
Total disbursements.....	77,956.46	
Balance in treasury June 30, 1904.....		$3,514.29

McHENRY RHOADS, *Treasurer.*

OWENSBORO, KY., June 30, 1904.

ST. LOUIS, MO., June 26, 1904.

The undersigned, trustees of the National Educational Association, have this day examined and approved the accounts of Mr. McHenry Rhoads, Treasurer, with all statements of receipts and vouchers for disbursements.

(Signed)
ALBERT G. LANE, *Chairman.*
JOHN W. COOK.
NICHOLAS MURRAY BUTLER.
NEWTON C. DOUGHERTY.
F. LOUIS SOLDAN.

CHICAGO, July 13, 1904.

Executive Committee, National Educational Association of the United States:

GENTLEMEN: In accordance with instructions received from Mr. A. G. Lane, chairman of the Board of Trustees, we have examined the books and accounts of the National Educational Association of the United States, as kept by the Secretary, Irwin Shepard, the Treasurer, McHenry Rhoads, and the chairman of the Board of Trustees, A. G. Lane, for the year ending June 30, 1904.

We have verified the Treasurer's report, and the report of the Board of Trustees, submitted at the meeting of the Association at St. Louis, Mo., and we certify both reports to be in accordance with the books.

We noticed an error in one of the vouchers for the Treasurer's Cash Disbursements as follows: Voucher No. 179, Irwin Shepard, Secretary, $104.95. Various items in this voucher amount to $114.95, leaving a balance due to Dr. Shepard of $10.00.

We are pleased to be able to report that the books are correctly and carefully kept, and are, in our opinion, well suited to the needs of the Association.

Yours respectfully,
THE INTERNATIONAL AUDIT COMPANY,
By JOHN McLAREN, *President.*

ROBERT NELSON,
Certified Public Accountant, Manager.

EIGHTEENTH ANNUAL REPORT OF THE BOARD OF TRUSTEES

To the Board of Directors of the National Educational Association:

The Board of Trustees presents the following report of the Permanent Fund of the National Educational Association and its income for the year ending June 30, 1904:

Permanent Fund, July 1, 1903:		
Mortages on real estate.....	$78,000	
Kansas school and municipal bonds.....	11,200	
Illinois and Indiana school bonds.....	18,000	
Cash on hand for investment.....	800	
Total.....		$108,000
Received from McHenry Rhoads, Treasurer, from proceeds of Boston meeting and income from Permanent Fund.....		$39,000
Total.....		$147,000
Permanent Fund, July 1, 1904:		
Mortgages on real estate.....	$69,500	
Kansas school and municipal bonds.....	10,100	
Illinois bonds.....	53,500	
Total.....		$133,100
Cash on hand for investment.....		13,900
Total.....		$147,000

INVESTMENTS

Investment, July 1, 1903		$107,200
Paid during the year:		
Mortgage, 1201 Irving Park boulevard, Chicago	$ 500	
Mortgage, 418 and 420 West Adams street, Chicago	10,000	
226 Central avenue, Chicago	3,000	
230 Central avenue, Chicago	4,000	
Eudora City, Kansas, Bond No. 12	100	
Lemont, Ill., Bond No. 12	500	
Sharp's Creek, McPherson county, Kan.	1,000	
Chicago improvement bonds	4,000	
First Universalist Church, Englewood, Chicago	2,000	
Wadham's estate	10,000	
Total		35,100
Balance of investments		$72,100
Investments during the year:		
726 and 728 W. Adams street, Chicago, first mortgage	$10,000	
5239 and 5241 Cornell avenue, Chicago, first mortgage	11,000	
Chicago drainage bonds	40,000	
Total		61,000
Total investment, July 1, 1904		$133,100

INCOME STATEMENT

Receipts from interest:		
City of Eudora, Kan.	$54.00	
Hodgeman county, Kan.	60.00	
McPherson county, Kan., Sharp's Creek township	30.00	
Morgan Park, Ill.	155.65	
Lemont, Ill.	212.50	
First mortgage, 1919 Wabash avenue, Chicago	251.08	
First mortgage, 5136 Hibbard avenue, Chicago	250.00	
First mortgage, 5603 Madison avenue, Chicago	250.00	
First mortgage, First Universalist Church	432.50	
First mortgage, 4762 Lake avenue, Chicago	383.57	
First mortgage, 726 and 728 W. Adams street, Chicago	11.26	
First mortgage, 226 and 230 Central avenue, Chicago	313.89	
Chicago improvement bonds	600.00	
First mortgage, 312 N. LaSalle street, Chicago	250.00	
First mortgage, 1201 Irving Park boulevard, Chicago	175.00	
418–20 W. Adams street, Chicago	700.00	
5526–28 Jefferson avenue, Chicago	550.00	
2268 Kenmore avenue, Chicago	125.00	
Wadham's estate, demand	600.83	
Chicago drainage bonds	800.00	
Interest on bank deposits	368.70	
Total interest transferred to McHenry Rhoads, Treasurer		$6,573.98

EXPENSE ACCOUNT

Premium on bonds	$650.00	
Accrued interest on loans	698.63	
Rent of box in National Safe Deposit Company	13.00	
Record book	1 00	
Expense examining loans:		
Attorney's fees	20.00	
Appraiser's fees	35.00	
R. R. fares	1.35	
Total		$1,418.98

STATEMENT OF SECURITIES BELONGING TO THE PERMANENT FUND OF THE NATIONAL EDUCATIONAL ASSOCIATION. JUNE 30, 1904

KANSAS COUNTY, MUNICIPAL, AND SCHOOL BONDS

County	Kind of Bond	Amount	Rate of Interest	Interest Payable	Bond Due
Douglas	Eudora City	$ 800	6%	March	One due each year March 1
Garfield[1]	School District 24	800	6%	Jan. and July	January, 1910
Grant[1]	County	2,000	6%	Jan. and July	February, 1920
Hodgeman	County	1,000	6%	Jan. and July	July 1, 1919
Lane[1]	County	3,000	6%	Jan. and July	July 1, 1918
Ness[1]	School District 70	500	6%	Jan. and July	July, 1903
Reno[1]	City of South Hutchinson	1,000	7%	Feb. and Aug.	April, 1908
Seward[1]	With Bentley & Hatfield, Wichita, Kan.	1,000	..	Judgment obtained	.....
	Total	$10,100			

ILLINOIS BONDS AND MORTGAGES

Bonds	Amount	Rate of Interest	Interest Payable Jan. and July	Bond Due
Village of Morgan Park, Ill.	$ 2,500	4½%	May and Nov.	Nov. 1, 1911
Village of Morgan Park, Ill.	1,000	4½%	Jan. and July	July 1, 1913
Lemont, Ill., School, Nos. 14, 16, 18, 20, 22, 24, 30, 32	4,000	5 %	June and Dec.	$1,000 yearly Dec. 1
Chicago improvement bonds	6,000	6 %	December	Dec., 1904
Chicago drainage bonds	40,000	4 %	Dec. and June	Dec., 1917
Total	$53,500			

REAL ESTATE

First Mortgages	Amount	Rate of Interest	Interest Payable	Mortgage Due
1919 Wabash avenue, Chicago	$ 5,000	5 %	May and Nov. 1	May 1, 1908
5136 Hibbard avenue, Chicago	5,000	5 %	May and Nov. 1	November 1, 1908
5603 Madison avenue, Chicago	5,000	5 %	July and January	July 1, 1904
First Universalist Church, Englewood, Ill.	7,000	5 %	Oct. and April	October, 1904
4762 Lake avenue, Chicago	5,000	5 %	March and Sept.	March, 1905
312 LaSalle street, Chicago	5,000	5 %	April and Oct.	October, 1906
1201 Irving Park boulevard, Chicago	3,000	5 %	January and July.	July, 1906
726–28 W. Adams street, Chicago	10,000	4½%	Feb. and August	February 1, 1907
5526 and 5528 Jefferson avenue, Chicago	10,000	5 %	April and Oct.	October 1, 1907
5526 and 5528 Jefferson avenue, Chicago	1,000	5 %	April and Oct.	October 1, 1904
2268 Kenmore avenue	2,500	5 %	May and Nov.	November 15, 1907
5239 and 5241 Cornell avenue	11,000	4½%	January and July	January, 1909
Total	$69,500			

Approved by the Board of Trustees and ordered transmitted to the Board of Directors.

ALBERT G. LANE, *Chairman.*
JOHN W. COOK.
NICHOLAS MURRAY BUTLER.
NEWTON C. DOUGHERTY.
F. LOUIS SOLDAN.

INVESTOR'S AUDIT COMPANY

CHICAGO, ILL., June 23, 1904.

John W. Cook, Esq., Normal School, DeKalb, Ill.:

DEAR SIR: Pursuant to your instructions, I have this day examined the following securities belonging to the permanent fund of the National Educational Association. (Here follows detailed list of securities as per the above statements.)

[1]Interest or principal in default.

With regard to the above Kansas bonds, no interest has been paid on the Garfield County Bonds since July, 1892; on the Grant County Bonds, since July, 1895; on the Lane County Bonds, since July, 1896. The District No. 70 Ness County Bonds are overdue, and Mr. Lane informs me that negotiations are pending for settlement.

The City of South Hutchinson, Reno county, Bonds have not paid interest since August, 1896. Mr. Lane informs me that a bond for $1,000, Seward county, Kansas, is in the hands of Bentley & Hatfield, Wichita, Kan., and that judgment has been obtained on same.

The July coupons for interest on the Hodgeman County Bond and the Village of Morgan Park Bond were found to be in the hands of the First National Bank for collection; also mortgage note on property 5603 Madison avenue, Chicago. Documentary proof of this was submitted.

I have not examined the books of account or inquired into the titles in the case of the above, but have simply verified the physical possession of the securities detailed above, which are in accordance with a list given me by Mr. Lane.

Respectfully submitted,

(Signed) F. J. HOWELL, *Secretary.*

JOURNAL OF PROCEEDINGS

OF THE

FORTY-THIRD ANNUAL CONVENTION

OF THE

NATIONAL EDUCATIONAL ASSOCIATION

HELD IN CONNECTION WITH THE LOUISIANA PURCHASE EXPOSITION

ST. LOUIS, MO., JUNE 27–JULY 1, 1904

FIRST DAY'S PROCEEDINGS

OPENING SESSION.—TUESDAY, JUNE 28, 9:30 A. M.

The forty-third annual convention of the National Educational Association was called to order by President John W. Cook, of De Kalb, Ill., at 9:30 A. M., in Festival Hall, on the Exposition grounds.

After several selections by Banda Rossa, of Italy, prayer was offered by Superintendent Nathan C. Schaeffer, of Pennsylvania.

A letter was read by the President from Governor A. M. Dockery of Missouri, regretting his inability, by reason of unexpected and important official business, to be present at the opening session of the convention to welcome the convention to the state.

Addresses of welcome were given by Hon. W. T. Carrington, state superintendent of public instruction of Missouri; Dr. C. M. Woodward, president of the board of education of St. Louis; Dr. F. Louis Soldan, superintendent of instruction of the public schools of St. Louis; Hon. Rolla Wells, mayor of the city of St. Louis; Hon. David R. Francis, president of the Louisiana Purchase Exposition; Hon. Howard J. Rogers, chief of the Department of Education and director of Congresses, Louisiana Purchase Exposition; and Chancellor W. S. Chaplin, of Washington University, chairman of the Local Executive Committee of the National Educational Association for St. Louis.

Responses to the addresses of welcome were made by Hon. W. T. Harris, Commissioner of Education of the United States, and Charles D. McIver, president of the State Normal and Industrial College, Greensboro, N. C.

The annual address of the President of the Association was delivered by President John W. Cook, of De Kalb, Ill., on the subject, "The New Individualism."

Following this address, President Edmund J. James, of Northwestern University, Evanston, Ill., addressed the convention on "The Place of the Church in American Education."

The Committee on Resolutions was announced as follows:

COMMITTEE ON RESOLUTIONS

Charles D. McIver, president of State Normal and Industrial College, Greensboro, N. C.
John W. Carr, superintendent of schools, Anderson, Ind.
Miss Amelia C. Fruchte, first assistant in Normal and High School, St. Louis, Mo.
Miss Margaret A. Haley, president of the National Federation of Teachers, Chicago, Ill.
Miss Anna Tolman Smith of the United States Bureau of Education, Washington, D. C.
Augustus S. Downing, assistant commissioner of education, Albany, N. Y.
S. Y. Gillan, editor of the *Western Teacher* and the *American Journal of Education*, Milwaukee, Wis.

COMMITTEE ON RESOLUTIONS—*continued*

Stuart H. Rowe, supervising principal of city schools, New Haven, Conn.
Miss Mary S. Garrett, principal of Training School for the Deaf, Philadelphia, Pa.
Samuel M. Lindsay, commissioner of education for Porto Rico, San Juan, P. R.
W. S. Sutton, professor of the science and art of education, University of Texas, Austin, Tex.
John D. Benedict, superintendent of schools for Indian Territory, Muskogee, I. T.
C. C. Van Liew, president, State Normal School, Chico, Cal.

After announcements by the Secretary, the convention adjourned to meet at 9:30 A. M., Wednesday, June 29.

SECOND DAY'S PROCEEDINGS

SECOND SESSION.—WEDNESDAY, JUNE 29, 9:30 A. M.

The convention was called to order in Festival Hall by President John W. Cook, at 9:30 A. M.

Two musical selections were rendered by Weil's Band, of St. Louis, Mo.

Rev. D. S. Phelan, of Our Lady of Mt. Carmel Catholic Church, led the convention in prayer.

The President then introduced Captain Percy Atkin, commissioner in charge of the British education exhibit, who addressed the convention on "Popular Education in England."

"The Educational Possibilities for the Country Child in the United States" was the subject of a paper by O. J. Kern, superintendent of schools of Winnebago county, Rockford, Ill.

John Herbert Phillips, superintendent of schools of Birmingham, Ala., read a paper on "The Educational Needs of the South."

Mr. Scott Brook, the organist of Leland Stanford Junior University, of California, was introduced and favored the audience with two selections on the great Exposition organ.

An address on "Education in the Philippines" was delivered by E. B. Bryan, former superintendent of education of the Philippine Islands, now connected with the Indiana State University, Bloomington, Ind.

"Our Educational Creed," by Z. X. Snyder, president of the State Normal School, Greeley, Colo., was the closing address of the morning session.

Announcements were then made by the Secretary of a special invitation to visit the Philippine education exhibit, and of various receptions and entertainments tendered to the members of the Association.

The convention then adjourned to 5:30 P. M.

THIRD SESSION.—WEDNESDAY, JUNE 29, 5:30 P. M.

The first vesper meeting of the Association was called to order at 5:30 P. M., President Cook in the chair.

Halsey C. Ives, chief of the Department of Art of the Louisiana Purchase Exposition, was introduced by the President, and addressed the Association on "The Art Exhibits of the Exposition."

The following Committee on Nominations was announced by the President, having been appointed by him in accordance with By-Law No. 1:

COMMITTEE ON NOMINATIONS

J. H. PHILLIPS, of Alabama, *Chairman*

Alabama	J. H. Phillips	Montana	H. H. Swain
Arizona	J. B. Jolly	Nebraska	Irving S. Cutter
Arkansas	J. H. Hinemon	Nevada	Vacant
California	David Snedden	New Hampshire	Vacant

COMMITTEE ON NOMINATIONS—*continued*

Colorado	L. C. Greenlee	New Jersey	Langdon S. Thompson
Connecticut	E. H. Arnold	New Mexico	A. B. Stroup
Delaware	Vacant	New York	Howard J. Rogers
District of Columbia	Anna Tolman Smith	North Carolina	Charles D. McIver
Florida	J. M. Guilliams	North Dakota	C. C. Schmidt
Georgia	W. F. Slaton	Ohio	W. H. Kirk
Idaho	Martha Keenan	Oklahoma	David R. Boyd
Illinois	J. H. Collins	Oregon	Vacant
Indiana	Henry B. Brown	Pennsylvania	Addison L. Jones
Indian Territory	John D. Benedict	Rhode Island	Vacant
Iowa	Samuel H. Sheakly	South Carolina	Vacant
Kansas	D. F. Shirk	South Dakota	William P. Dunlevy
Kentucky	John B. Taylor	Tennessee	A. C. Webb
Louisiana	Eveline A. Waldo	Texas	P. W. Horn
Maine	M. C. Fernald	Utah	Rosalie Pollock
Maryland	James H. Van Sickle	Vermont	Vacant
Massachusetts	C. H. Ames	Virginia	E. E. Jones
Michigan	W. H. Elson	Washington	W. G. Hartranft
Minnesota	C. R. Frazier	West Virginia	John C. Shaw
Mississippi	J. C. Fant	Wisconsin	C. G. Pearse
Missouri	F. D. Tharpe	Wyoming	Estelle Reel

Following various announcements, the convention adjourned to 9:15 A. M., June 30.

THIRD DAY'S PROCEEDINGS

FOURTH SESSION.—THURSDAY, JUNE 30, 9:15 A. M.

The convention was called to order by President Cook at 9:15 A. M.

Rev. Samuel J. Niccolls, of the Second Presbyterian Church, St. Louis, led the convention in prayer.

The first address of the session was delivered by Hon. Samuel M. Lindsay, commissioner of education for Porto Rico, on the subject of "Education in Porto Rico."

The second address, on "The New Departure in Secondary Education," was delivered by J. J. Sheppard, principal of the High School of Commerce, New York city.

A brief organ recital followed, by Professor Charles R. Galloway, the official organist of the Exposition.

In the absence of M. Georges Lamy, of France, who was appointed to read a paper on "Elementary Education in France," Rear-Admiral Casper N. Goodrich was introduced, and addressed the Association on the subject of "Education in the Navy."

Booker T. Washington, president of the Normal and Industrial Institute, Tuskegee, Ala., then addressed the convention on "Education of the Southern Negro."

After announcements by the Secretary, the convention adjourned, and the annual meeting of active members of the Association assembled at 12:30 P. M.

MINUTES OF THE ANNUAL BUSINESS MEETING OF ACTIVE MEMBERS OF THE NATIONAL EDUCATIONAL ASSOCIATION HELD IN FESTIVAL HALL, EXPOSITION GROUNDS, THURSDAY, JUNE 30, 1904.

The meeting was called to order by the President, John W. Cook, at 12:30 P. M.

THE PRESIDENT: The first item of business is the reading of the minutes of the last annual meeting of active members. Is it your pleasure that these minutes be read? They are already printed in the annual volume of *Proceedings* of the Boston meeting.

On motion, the reading of the minutes was dispensed with, and the same were approved as printed.

THE PRESIDENT: The second item of business is the annual report of the Treasurer. Shall the report of the Treasurer be read?

N. C. Dougherty, of Illinois: In order to expedite business, I move that the report of the Treasurer be received and approved without reading, and that it be printed in the annual volume of *Proceedings*.

The motion was duly seconded, and carried without dissent

The President: The next item of business is the annual report of the chairman of the Board of Trustees, Mr. A. G. Lane, of Chicago.

A. G. Lane, chairman of the Board of Trustees: The report, which I have had printed, is now being distributed to the members. Is it desired that I shall read it in detail?

On motion, the reading of the report was dispensed with, and the report was received and approved, and ordered printed in the annual volume of *Proceedings*.

The President: The next item of business is the report of the Committee on Nominations, through its chairman, J. H. Phillips, of Alabama.

REPORT OF COMMITTEE ON NOMINATIONS

To the President and the Active Members of the National Educational Association:

On behalf of the members of the Committee on Nominations, I beg leave to report the following nominations for officers of the Association for the year 1904–5, as follows: For—

President	William H. Maxwell	New York.
First Vice-President	John W. Cook	Illinois
Second Vice-President	C. P. Cary	Wisconsin
Third Vice-President	George B. Cook	Arkansas
Fourth Vice-President	J. N. Study	Indiana
Fifth Vice-President	J. M. H. Frederick	Ohio
Sixth Vice-President	Miss Alice Robertson	Indian Territory
Seventh Vice-President	E. H. Mark	Kentucky
Eighth Vice-President	Henry H. Swain	Montana
Ninth Vice-President	A. J. Matthews	Arizona
Tenth Vice-President	B. C. Caldwell	Louisiana
Eleventh Vice-President	A. B. Poland	New Jersey
Twelfth Vice-President	Charles D. McIver	North Carolina
Treasurer	James W. Crabtree	Nebraska

DIRECTORS

Alabama	Isaac W. Hill	Montgomery
Arizona	A. J. Matthews	Tempe
Arkansas	J. H. Hinemon	Little Rock
California	Arthur H. Chamberlain	Pasadena
Colorado	J. F. Keating	Pueblo
Connecticut	Charles H. Keyes	Hartford
Delaware	George W. Twitmyer	Wilmington
District of Columbia	Alexander T. Stuart	Washington
Florida	Miss Clem Hampton	Gainesville
Georgia	W. F. Slaton	Atlanta
Idaho	Miss May L. Scott	Boise
Illinois	J. A. Mercer	Peoria
Indiana	T. A. Mott	Richmond
Indian Territory	John D. Benedict	Muskogee
Iowa	A. V. Storm	Cherokee
Kansas	J. W. Spindler	Winfield
Kentucky	S. L. Frogge	Frankfort
Louisiana	Warren Easton	New Orleans
Maine	John S. Locke	Saco
Maryland	M. Bates Stephens	Baltimore
Massachusetts	Will S. Munroe	Westfield
Michigan	W. H. Elson	Grand Rapids
Minnesota	W. F. Kunze	Red Wing
Mississippi	Robert B. Fulton	University
Missouri	Ben Blewett	St. Louis
Montana	Robert G. Young	Butte
Nebraska	George L. Towne	Lincoln

REPORT OF COMMITTEE ON NOMINATIONS—DIRECTORS (*continued*)

Nevada	J. E. Stubbs	Reno
New Hampshire	J. A. Klock	Plymouth
New Jersey	John Enright	Freehold
New York	Augustus S. Downing	Albany
North Carolina	Miss Lydia Yates	Wilmington
North Dakota	W. E. Hoover	Park River
Ohio	E. D. Lyon	Madisonville
Oklahoma	Andrew R. Hickam	Alva
Oregon	D. H. Grout	Portland
Pennsylvania	J. W. Lansinger	Millersville
Rhode Island	W. B. Jacobs	Providence
South Carolina	W. K. Tate	Charleston
South Dakota	Geo. W. Nash	Pierre
Tennessee	D. J. Johns, Jr.	Nashville
Texas	Alexander Hogg	Fort Worth
Utah	A. C. Nelson	Salt Lake
Virginia	J. L. Jarman	Farmville
Washington	F. B. Cooper	Seattle
West Virginia	Miss Lucy Robinson	Wheeling
Wisconsin	L. D. Harvey	Menomonie
Wyoming	Miss Estelle Reel	Washington, D. C.

SUPPLEMENTARY REPORT

Your committee begs leave to recommend that Alaska, Porto Rico, Hawaii, and the Philippine Islands be granted representation in the National Educational Association, and that directors be elected as follows for next year:

Alaska	Miss Cassia Patton	Sitka
Porto Rico	Samuel McCune Lindsay	San Juan
Hawaii	Charles B. Dyke	Honolulu
Philippine Islands	C. H. Maxson	Iloilo, Panay

Respectfully submitted,
J. H. Phillips, *Chairman.*
W. G. Hartranft, *Secretary.*

After the reading of the report, attention was called to the fact that the territory of New Mexico was not represented by a nominee for director.

On motion of A. S. Downing, of New York, the report was amended by the insertion of the name of H. A. Owen, of Silver City, N. M., for director of the territory of New Mexico.

On motion of F. Louis Soldan, of Missouri, the report of the Committee on Nominations, as amended, was received, and the Secretary was instructed by unanimous vote to cast the ballot of the members for the nominees, as read.

The Secretary reported the ballot as cast in accordance with the motion of instructions, and the President announced the nominees as officers of the National Educational Association for the ensuing year.

The President: The next item on the docket is new business. The chair will await the pleasure of the meeting.

Ben Blewett, of Missouri: Mr. Chairman, I have a resolution to offer, an explanation of which I presume is not necessary for those who have been active members of this Association for any considerable length of time; but to those who have recently become members it may be due to say a word before the resolution is read. The Board of Trustees, which, before the law, is the corporate body of the Association, was incorporated some nineteen years ago, to have a corporate existence of twenty years. That incorporation will expire by limitation in February, 1906. The important business in the charge of the Board of Trustees makes it necessary at this time to look forward toward its reincorporation, and to the proper attention to the interests of the Association. With your permission, and the permission of the active members, I offer the following resolution:

Resolved, That, in view of the early expiration, thru limitation by law, of the certificate of incorporation of the trustees of the National Educational Association, the Board of Trustees is hereby authorized and requested to take such steps as may be necessary to continue their corporate existence, and to protect the interests of the Association thereby.

Resolved, That, in case existing provisions of law as to the incorporation of associations for educational or financial purposes require any change in the terms of the existing Constitution and rules of the Association, the trustees be, and are hereby, directed to report to the Board of Directors, and to the next annual meeting of the active members, such changes, if any, as they may recommend for adoption.

In answer to a request by a member that notification of any proposed changes in the Constitution under the resolution be sent by the Secretary to the active members, Mr. Blewett asked permission to add the following :

Resolved, That due notice by the Secretary, under the terms of the present Constitution, be given to active members of any changes that shall be proposed by the Board of Trustees in pursuance of the above resolutions.

The resolutions, as thus amended, were carried by a unanimous vote.

S. Y. GILLAN, of Wisconsin: Mr. President, I rise to offer a resolution to amend the Constitution and By-Laws of the Association as follows:

Resolved, That sec. 2, Art. IV, of the Constitution be amended by adding the following words to the first paragraph:

"The active members from any state, territory, or district, in attendance at the meeting for electing a member of the Committee on Nominations, may elect the additional member of the Board of Directors for such state, territory, or district."

Resolved, That the By-Laws be amended by inserting the following paragraphs immediately after the first paragraph of By-Law No. 1:

"The Committee on Nominations shall meet on the second day of each annual session and nominate candidates for President, first Vice-President, Treasurer, and a director for each state, territory, or district whose members shall not have reported the election of a director as provided in sec. 2, Art. IV, of the Constitution; and the Committee on Nominations shall report to the active members at their meeting the following day a list of the nominations.

"When the vote is taken by the Committee on Nominations for candidates for President, first Vice-President, and Treasurer, the committee shall report the persons having the highest number of votes, not exceeding two persons, as candidates for each office. But if, after two formal ballots, any person shall receive a two-thirds majority of the votes cast by the Committee on Nominations for any one of the aforesaid offices, then the person receiving such two-thirds majority shall be reported as the only candidate for such office."

Mr. President, I believe that, under the rules, a proposed amendment must lie over for one year, in order to give opportunity for deliberate consideration of the proposed amendment. I, therefore, move that the Secretary be instructed to print these proposed amendments, and any others that may be proposed at this meeting, in the official program of next year, so that they may be intelligently taken up at the next annual meeting in 1905.

The motion of Mr. Gillan was seconded and carried by unanimous vote.

A count of the number of active members present was made. The Secretary reported 576 members present, and stated that the number was more than twice the attendance at any former meeting of active members.

After notices by the Secretary, the meeting adjourned.

IRWIN SHEPARD, *Secretary*.

FIFTH SESSION.—THURSDAY, JUNE 30, 5:45 P. M.

The second vesper meeting was called to order in Recital Hall of the Festival Hall building. In the absence of Carl T. F. Bitter, director of sculpture of the Louisiana Purchase Exposition, Mr. George Julian Zolnay, instructor in architecture of St. Louis School of Fine Arts, addressed the convention on "Sculpture and Decoration at the Exposition."

After Mr. Zolnay's address, a few announcements were given, and the convention adjourned to Friday, at 9:15 A. M.

FOURTH DAY'S PROCEEDINGS

SIXTH SESSION.—FRIDAY, JULY 1, 9:15 A. M.

An introductory musical program was rendered by Weil's Band, of St. Louis.

The convention was called to order by President Cook at 9:15 A. M., and was opened by prayer by Rev. Robert A. Holland, D.D., of St. George's Episcopal Church, St. Louis.

The first address of the morning was on "The Place of the Small College," by George A. Gates, president of Pomona College, Claremont, Cal.

The convention was honored in a visit by his eminence Cardinal Francis Satolli, accompanied by his associates. Having been introduced to the Association by President Cook, Cardinal Satolli addressed the convention briefly, as follows:

REMARKS BY CARDINAL SATOLLI

[STENOGRAPHIC REPORT]

I am very happy this morning to pay my respects and to offer congratulations to you, the members of the National Educational Association of America. I come here, not only as a simple Christian underpriest of the Catholic church, but also as a cardinal of the Holy See, to tender a tribute of sincerest respect.

Yesterday evening I spoke in this place on that most interesting subject, education. The results of your congress will not only remain for the honor of this glorious Universal Exposition, but will also be continued in its salutary influence thruout the United States, and, in its highest consequences, will affect also the people in all countries of the Christian world.

The future of humanity does not depend on the strength of nations or on their material prosperity; but the corner-stone of civilization, and the welfare of the greatest world-nations, are founded on public Christian education. Therefore, the United States of America in civil and political liberty leads in the progress of humanity; for which reason, also, special congratulations are tendered on behalf of your Republic and your Christian and universal education.

Following the address of the cardinal, Rt. Rev. Monsignor D. O'Connell, rector of the Catholic University of America, at Washington, D. C., was introduced and spoke as follows:

REMARKS BY RT. REV. MONSIGNOR D. O'CONNELL

[STENOGRAPHIC REPORT]

Mr. President, Teachers of the Schools in America:

Tho something of a stranger in St. Louis, I feel myself quite at home here. I have spent much of my life, and I suppose I shall spend the rest of it, doing just what you are doing—carrying on the work of education. I look with a great deal of interest and admiration at all of the many objects placed here on exhibition by the several states of the Union and the different nations of the world, but nothing of all that the Exposition presents to me impresses me as the audience now before me.

What is the great power in the world today, in civilization? It is the soul of America. Who is it controls that mighty soul? You; you who create, teach, and inspire that mighty soul that is charged with the destinies of humanity. Oh, what a mighty responsibility to shape that future! All priests and priestesses of humanity! Really, I should like to get into your souls, to know what you think. And I suppose you would like to get into mine. How I should like, for a moment, to be in your place, to be able to breathe impulses into that mighty soul of America! Were I a teacher of a school, what would I say to the soul of America? What would be my first lesson? This, above all: To thy God be true; next: Love honesty above all things else; thirdly: Put your liberties above your interests, and spend your lives to make yourselves and your fellow-men better.

The second paper of the session was read by Dr. Leopold Bahlsen, commissioner of the German educational exhibit, on "The Preparation of Teachers in Germany."

Then followed a brief organ recital by Professor Charles R. Galloway.

Miss Margaret A. Haley, president of the National Federation of Teachers, Chicago, Ill., addressed the convention on "Why Should the Teachers Organize?"

"The Limitation of the Superintendent's Authority and of the Teacher's Independence" was the subject of the closing address of the morning, by Aaron Gove, superintendent of the city schools, Denver, Colo.

After announcements, the convention adjourned to meet at 5:45 P. M.

SEVENTH SESSION.—FRIDAY, JULY 1, 5:45 P. M.

The convention assembled for the closing vesper meeting at 5:45 P. M., and was called to order by President Cook.

Mr. George Julian Zolnay, instructor in architecture of the St. Louis School of Fine Arts, and superintendent of the Division of Sculpture of the Louisiana Purchase Exposition, was introduced and addressed the convention on "The Architecture of the Exposition," supplying the place of William S. Eames, president of the American Institute of Architects, who had been appointed to speak at this session, but who was unable to fill the engagement on account of illness.

Following the address of Mr. Zolnay, the President called for the report of the Committee on Resolutions, which was presented by Mr. Charles D. McIver, of North Carolina, chairman of the committee.

REPORT OF THE COMMITTEE ON RESOLUTIONS

The members of the National Educational Association, assembled in this their forty-third convention, make the following resolutions:

DECLARATION

1. We cannot emphasize too often the educational creed first promulgated more than a century ago, that "religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged." This declaration of the fathers must come to us now with newer and more solemn call when we remember that in many parts of our common country the fundamental questions of elementary education—local taxation, consolidation of weak schools, rational supervision, proper recognition of the teacher as an educator in the school system, school libraries, and well-trained and well-paid teachers—are still largely unsettled questions.

2. We would direct attention, therefore, to the necessity for a supervisor of ability and tact for every town, city, county, and state system of public schools. Not only are leaders needed in this position who can appreciate and stimulate the best professional work, but qualities of popular leadership are also demanded to the end that all classes of people may be so aroused that every future citizen of the Republic may have the very best opportunities for training in social and civic efficiency.

3. The very nature of the teacher's task demands that that task be entrusted only to men and women of culture and of intellectual and moral force. Inadequate compensation for educational work drives many efficient workers from the schoolroom and prevents many men and women of large ambitions for service from entering the profession. It is creditable neither to the profession nor to the general public that teachers of our children, even tho they can be secured, should be paid the paltry sum of $300 a year, which is about the average annual salary of teachers thruout the country.

4. The Bureau of Education at Washington should be preserved in its integrity, and the dignity of its position maintained and increased. It should receive at the hands of our lawmakers such recognition and such appropriations as will enable it not only to employ all expert assistance necessary, but also to publish in convenient and usable form the results of investigations; thus making that department of our government such a source of information and advice as will be most helpful to the people in conducting their campaigns of education.

5. We would emphasize the necessity for the development of public high schools wherever they can be supported properly, in order that the largest number possible of those who pass thru the elementary grades may have the advantage of broader training, and for the additional reason that the public elementary schools are taught largely by those who have no training beyond that given in the high schools.

6. As long as more than half of our population is rural, the rural school and its problems should receive the solicitous care of the National Educational Association. The Republic is vitally concerned in the educational development of every part of its territory There must be no forgotten masses anywhere in our Union of states and territories, nor in any one of its dependencies.

7. We believe that merit and merit alone should determine the employment and retention of teachers; that, after due probation, tenure of office should be permanent during efficiency and good behavior; and that promotions should be based on fitness, experience, professional growth, and fidelity to duty. We especially commend the efforts that are being made in many parts of the country whereby teachers, school officials, and the general public working together for a common purpose are securing better salaries for teachers and devising a better system for conserving the rights and privileges of all and for improving the efficiency of the schools.

8. We declare further that, granted equal character and efficiency, and equally successful experience, women are equally entitled with men to the honors and emoluments of the profession of teaching.

9. We advocate the enactment and rigid enforcement of appropriate laws relating to child labor, such as will protect the mental, moral, and physical well-being of the child, and will be conducive to his educational development into American citizenship.

10. The responsibility for the success or failure of the schools rests wholly with the people, and therefore the public schools should be kept as near to the people as practicable; to this end we indorse the principle of popular local self-government in all school matters.

11. Since education is a matter of the highest public concern, our public-school system should be fully and adequately supported by taxation; and tax laws should be honestly and rigidly enforced both as to assessment and collection.

12. We congratulate and thank the management of the Louisiana Purchase Exposition for giving education first place in the scheme of classification, for the location and grandeur of its building, and for the extent and arrangement of the educational exhibits. Such recognition of education is in harmony with the genius of our democracy and will stimulate interest in popular education thruout the world.

CHARLES D. McIVER, of North Carolina, *Chairman*;
JOHN W. CARR, of Indiana;
AMELIA C. FRUCHTE, of Missouri;
MARGARET A. HALEY, of Illinois;
ANNA TOLMAN SMITH, of District of Columbia;
AUGUSTUS S. DOWNING, of New York;
S. Y. GILLAN, of Wisconsin;
Committee on Resolutions.

The resolutions as presented were then adopted by the convention by a unanimous vote.

Following this action, a series of resolutions was passed expressing the thanks of the Association to the teachers and other citizens of St. Louis; to Chancellor W. S. Chaplin, chairman of the Local Executive Committee of the National Educational Association, and his associates, for the generous reception and entertainment of the Association; to the officers of the Louisiana Purchase Exposition Company, and especially to Howard J. Rogers, chief of the Department of Education and director of Congresses; to the Missouri State Commissioners, for the use of their beautiful building for headquarters; and to the press of the city and the Associated Press, for their reports of the convention.

A special resolution of thanks was tendered by the Association to the retiring President, John W. Cook, of Illinois; and to the retiring Treasurer, McHenry Rhoads, of Kentucky, for their year of skillful and effective services.

President Cook then read a telegram from President-elect W. H. Maxwell, of New York city, accepting his election as President of the Association for the ensuing year, and expressing his gratitude for the honor conferred.

President Cook then briefly addressed the Association, and declared the Forty-third Annual Convention of the National Educational Association adjourned.

IRWIN SHEPARD, *Secretary.*

MINUTES OF THE MEETING OF THE BOARD OF DIRECTORS FOR 1903–1904

ST. LOUIS, MO., JUNE 27, 1904

The annual meeting of the Board of Directors was called to order in the Model Library of the Missouri State Building, Louisiana Purchase Exposition grounds, St. Louis, Mo., at 5:30 P. M., June 27, 1904, by President John W. Cook.

The following directors answered to roll-call:

John W. Cook, Illinois; McHenry Rhoads, Kentucky; Albert G. Lane, Illinois; Nicholas Murray Butler, New York; James H. Canfield, New York; Newton C. Dougherty, Illinois; Aaron Gove, Colorado; J. M. Green, New Jersey; J. M. Greenwood, Missouri; W. T. Harris, District of Columbia; F. Louis Soldan, Missouri; John S. Locke, Maine; Augustus S. Downing, New York; John Enright, New Jersey; M. Bates Stephens, Maryland; Miss Lydia A. Yates, North Carolina; S. L. Frogge, Kentucky; D. J. Johns, Jr., Tennessee; W. F. Slaton, Georgia; E. E. Bass, Mississippi; A. Caswell Ellis, Texas; David R. Boyd, Oklahoma; John R. Benedict, Indian Territory; W. H. Kirk, Ohio; T. A. Mott, Indiana; Miss Catherine Goggin, Illinois; D. W. Springer, Michigan; L. D. Harvey, Wisconsin; A. V. Storm, Iowa; W. L. Kunze, Minnesota; Ben Blewett, Missouri; George W. Nash, South Dakota; E. J. Bodwell, Nebraska; Oscar J. Craig, Montana; Miss Estelle, Reel, Wyoming; Lewis C. Greenlee, Colorado; A. J. Matthews, Arizona; W. J. Kerr, Utah; Miss May L. Scott, Idaho; Frank B. Cooper, Washington.

Present, forty directors.

On motion, the reading of the minutes of the last meeting, held in Boston, Mass., July 9, 1903, was dispensed with, and the minutes were approved as printed in the volume of *Proceedings* of the Boston meeting.

The secretary read communications from several absent directors, tendering their resignations, and nominating their successors for appointment to membership by the board, as follows:

Director John W. Lansinger, of Pennsylvania, nominating Nathan C. Schaeffer.
Director Warren Easton, of Louisiana, nominating Miss Eveline A. Waldo.
Director W. K. Tate, of South Carolina, nominating Leonard T. Baker.
Director Louis P. Nash, of Massachusetts, nominating Albert E. Winship.

On motion, these resignations of the several directors were accepted, and the secretary was instructed to cast the ballot of the directors for the election of the respective nominees.

The secretary reported the ballot as so cast, and the president announced the nominees elected as members of the Board of Directors.

The annual report of the Treasurer of the Association, Mr. McHenry Rhoads, of Kentucky, was then read.

Director A. G. Lane, chairman of the Board of Trustees, stated that the report of the Treasurer had been examined by the Board of Trustees and compared with the record of accounts as kept by the Secretary, and that said Board had attached their certificate that the Treasurer's report was found in all particulars correct.

On motion of Director J. M. Green, of New Jersey, duly seconded, the report of the Treasurer was received and approved, and ordered printed in the annual volume of *Proceedings*.

Director A. G. Lane, chairman, submitted the eighteenth annual report of the Board of Trustees. The detailed report was distributed to the members of the Board of Directors in printed form.

DIRECTOR A. G. LANE: You will note, by turning to the last page of the report, that quite a number of Kansas county and municipal school bonds, which we have held for a

good many years, are in default. This condition was brought about by the drought which existed in western Kansas some years ago, and which led to the abandonment of farms and the breaking up of some communities. But the country has been improving in recent years. The lands have been resold, and the taxable value has gradually increased. From information received by the Board of Trustees, we have felt that it is not advisable to accept offers of compromise for the settlement of these bonds that have been made from time to time. The market value of these bonds has gradually increased from twenty-five cents on the dollar to fifty cents, and in some cases to a little more.

At the meeting of the Board of Trustees last year it was deemed advisable to adopt a conservative policy in making investments, and it was recommended that such investments be made in approved bonds, rather than in real-estate mortgages. You will therefore notice that the investments in bonds have increased from $18,000 last year to $53,500 this year. Of the expense account, which appears on the second page of the report, you will note that $650 was for premiums on the bonds, and $698.63 was for the accrued interest and loans. Eight hundred dollars of this amount has been returned in interest received, as appears in the next to the last item of the "Income Statement."

On motion, the report of the Board of Trustees was received and adopted, and ordered printed in the annual volume of *Proceedings.*

THE SECRETARY: I am in receipt of a letter from Hon. Carroll D. Wright, of Washington, D. C., chairman of the Committee on the Economic Status of Teachers, transmitting a preliminary report of the committee. The report is of some length and refers to the work of the committee up to the present time, including certain statistics which have been tabulated. The entire report is, however, preliminary, and is submitted as a report of progress.

On motion of Director Nicholas Murray Butler, of New York, duly seconded, the report was received, and the secretary was instructed to transmit it to the National Council with recommendation that it be printed in the annual volume of *Proceedings.*

The secretary reported the receipt of a communication from Eliakim H. Moore, head of the Department of Mathematics of the University of Chicago, transmitting a petition to the Board of Directors for the establishment of a Department of Mathematical Education, said petition being in due form and signed by twenty-five or more active members particularly interested in mathematical education.

On motion, the application was read and received for consideration by the board.

Director J. M. Green moved that the petition for the proposed new department be not granted; seconded by A. S. Downing, of New York.

DIRECTOR J. M. GREEN: I think it would be a mistake to increase the number of departments that we already have. I have never been quite able to understand why we should have a Department of Higher Education, and then have other departments covering all the subjects that would naturally be discussed in the Department of Higher Education. I think that the increasing number of special departments draws interest away from the others.

DIRECTOR J. M. GREENWOOD: The proposed new department may draw something of interest away from the Department of Higher Education, but it seems to me that the request is one that ought to be granted. When you take into consideration the rather chaotic condition of the teaching of mathematics in this country, I think it would be entirely appropriate to establish a special department for the consideration of this subject. I, for one, am willing to vote for the creation of a Department of Mathematical Education.

After further general discussion, the motion of Director Green, that the petition be not granted, was put to vote and carried.

Under the order of new business, Edwin B. Cox, of Ohio, was recognized by the chair, and, being granted the privilege of the floor, he presented an application from the Committee on Simplification of Spelling appointed by the Department of Superintendence

of the National Educational Association at its meeting February 25, 1904. Said application was in the form of a communication to the Board of Directors, as follows:

To the Board of Directors of the National Educational Association and to the National Council:

GENTLEMEN: The acceptable duty was laid upon us by the Department of Superintendence, February 24, 1904, of formally apprising you of its adoption of the two following resolutions, and of respectfully asking your concurrence in them:

Resolved, (1) That the Department of Superintendence approves the first of the resolutions addressed to it by the State Teachers' Associations of Illinois, Wisconsin, and Minnesota, and respectfully requests the Board of Directors to appoint a permanent, self-perpetuating committee of thirty prominent citizens in different walks of life, particularly scholars and educators, and representing the various sections of the country, to head the movement for simplifying our spelling, and to promote its interests in all ways which they find feasible and deem wise.

Resolved, (2) That the Department of Superintendence approves the second of the resolutions addressed to it by the State Associations of Illinois, Wisconsin, and Minnesota, and respectfully requests the Committee on Investigations and Appropriations of the National Council to recommend to the Board of Directors, and the department respectfully asks said board to make, the appropriation of $2,000 a year for five years, for the use of the above committee, to be paid to it semi-annually, each payment to equal such a total sum as shall have been paid for the same purpose, within the preceding six months, to the treasurer of said committee by any individuals, teachers' associations, or other organizations, the amount paid by the National Educational Association never to exceed $2,000 in any one year, and never to exceed the sum contributed from outside sources during the previous six months.

Permit us to call your attention to the significance of the decisive vote of the department on each of the resolutions, and also to the significance of the decisive similar action by the State Teachers' Associations of Illinois, Wisconsin, and Minnesota, and by the principals' associations in over seventy-five of our largest cities and towns, as Chicago, Cincinnati, Cleveland, Syracuse, Toledo, Detroit, Columbus, Indianapolis, Springfield (Ill.), Minneapolis, etc.

It gives us pleasure to present to you herewith a petition signed by 1,545 of our active members, asking you to comply with the requests of the Department of Superintendence. We also present, in parallel column, the names of the 171 active members who oppose your taking such action. The vote thus stands over nine to one in favor of your complying with the requests of the department.

You will notice that, while your petitioners pay into the National Educational Association treasury directly, every year, about $3,000, they indirectly put in much more, as a large proportion of them are superintendents, who are the chief agents in securing the large attendance of grade teachers which we have every year.

To facilitate your action in this matter we submit (on the following pages) two different plans which have been suggested and carefully considered for organizing the proposed commission or committees. We submit them in a purely tentative way, merely as a working basis for your deliberations. While we hope to be heard fully when the matter is before you for action, we deem it proper to say here that, in our judgment, the interests of the National Educational Association will be best conserved by a working organization fashioned in the main in accordance with Plan A. But we are not strenuous on this point, and we are sure that whichever plan you adopt will prove acceptable to the Department of Superintendence and to all your other petitioners.

Respectfully submitted,

W. H. ELSON, *Chairman* (Superintendent, Grand Rapids, Mich.);
EDWIN B. COX (Superintendent, Xenia, O.);
C. N. KENDALL (Superintendent, Indianapolis, Ind.);
F. T. OLDT (Superintendent, Dubuque, Ia.);
A. W. RANKIN (State Inspector of Schools, Minneapolis, Minn.);
Special Committee of the Department of Superintendence.

On behalf of our respective State Associations, we heartily avail ourselves of the privilege kindly accorded to us of indorsing the above letter.

DAVID FELMLEY (President State Normal, Normal, Ill.)
Chairman Illinois Committee on Simplification of Spelling.
R. H. HALSEY (President State Normal, Oshkosh, Wis.),
Chairman Wisconsin Committee on Simplification of Spelling.
J. F. MILLSPAUGH (formerly President State Normal, Winona, Minn., and Chairman Minnesota Committee on Simplification of Spelling; now President State Normal, Los Angeles, Cal.).
C. W. G. HYDE (Editor *School Education*, Minneapolis),
Chairman Minnesota Committee on Simplification of Spelling.

RESOLUTIONS TO BE SUBMITTED FOR CONSIDERATION BY THE BOARD OF DIRECTORS OF THE NATIONAL EDUCATIONAL ASSOCIATION

REGULAR MEETING 5:30 P. M., MONDAY, JUNE 27, 1904, LIBRARY HALL, MISSOURI BUILDING, EXPOSITION GROUNDS, ST. LOUIS

WHEREAS, The Department of Superintendence of the National Educational Association, the State Teachers' Associations of Illinois, Wisconsin, and Minnesota, together with many other educational bodies and a large number of our active members and of other prominent persons, have memorialized this board to

create a permanent committee, and to provide it with a limited contingent fund, for the purpose of promoting and directing the movement to simplify our English spelling; therefore

PLAN A

Resolved, (1) That this Board hereby invites and constitutes the persons hereinafter named to be a Commission on the Simplification of Our English Spelling, under the following terms and conditions:

1. This commission is established to labor, directly or indirectly, with discretion and patience, and with persistence lasting thru generations, if need be, to induce our people gradually, but as rapidly as wise and scholarly leadership may render possible, to adopt such changes in our spelling as shall ultimately reduce it to a simple, regular, phonetic basis, so that all our words shall be spelled as they are pronounced, with one sound for each sign and one sign for each sound.

2. This commission shall consist of the following persons, or of so many of them as shall accept their appointment within thirty days after receiving notice thereof:

(A list of thirty or more persons, prominent as educators, writers, scholars, business men, etc., and representing different sections of the country, will be nominated for consideration by the board as soon as this resolution and its constituent sections are adopted.)

3. The commission shall organize by electing a president, a vice-president, and an executive board from its membership, and also a secretary and a treasurer, who may be members of the commission or not.

4. The commission shall be free to make its own rules for the conduct of its business; to determine its policy and methods; to increase or decrease the number of its members; to elect honorary members; to fill all vacancies that may arise in its membership; to affiliate other organizations with it in its efforts and work; to become a corporate body, and to hold and administer bequests or other funds for the best interests of the cause which it is created to serve; and to do any and all other acts which its judgment may approve as tending to promote the simplifying of our spelling.

5. The commission shall keep a record of all receipts and disbursements, which shall be open to inspection at all suitable times by any officer of the National Educational Association or by any regular contributor to its funds. It shall make an annual report to the Secretary of the National Educational Association covering the general features of its work for the year ending June 30, which report shall be published, at the discretion of the Executive Committee of the National Educational Association, in the volume of *Proceedings*.

6. The members of the commission shall serve without compensation, excepting the one who may be chosen to act as secretary or agent, who shall receive an appropriate salary. The actual expense incurred by any member in performance of any service to which he was duly appointed may be reimbursed to him.

Resolved, (2) That beginning July 1, 1904, there is hereby appropriated from the current revenues of this Association, for the use of said commission, the sum of $10,000, or so much thereof as shall be available after the regular expenses of this meeting are paid, and as shall never exceed the amount contributed from other sources for the use of the commission, said $10,000 or portion of it to be paid to the commission in ten semi-annual installments, each equal to, but never exceeding, the amount contributed during the same period, as above indicated.

PLAN B

Resolved, (1) That a permanent Committee on the Simplification of Our English Spelling is hereby established as one of the activities of the National Educational Association, under the following terms and conditions:

1. This committee is established to labor, etc. (same as in Plan A).

2. This committee shall consist of the following persons, or so many of them as shall accept their appointment and become active members of the National Educational Association, if not already such, within thirty days after receiving notice of said appointment.

(A list, etc. [same as in Plan A].)

3. The committee shall organize by electing a chairman, a vice-chairman, a secretary, and an executive board. The secretary need not be a member of the committee, but he must be or become, within thirty days after his election, an active member of the National Educational Association. The Treasurer of the National Educational Association shall act as treasurer of the committee, and as such he shall account for all money placed in his hands for the use of said committee.

4. The committee shall be free to make its own rules for the conduct of its business; to determine its policy and methods; to invite, in the name of the National Educational Association, scientific, literary, and other organizations to join with it in its work; to increase or decrease the number of its members; and to fill all vacancies that may arise in its membership, providing that any person elected as a member shall be an active member of the National Educational Association or become such within thirty days after notice of his election. The committee shall make an annual report to the secretary of the National Educational Association covering the general features of its work for the year ending June 30, which shall be printed in the annual volume of *Proceedings*.

5. The trustees of the National Educational Association are hereby authorized and requested to act as trustees for the Committee on Simplification of Spelling, and to receive and administer gifts and bequests made in its behalf.

6. The members of the committee shall serve without compensation, excepting the one who may be chosen to act as secretary or agent, who shall receive an appropriate salary, to be fixed by the committee and paid from its fund. The actual expense incurred by any member of the committee in the performance of any service to which he was duly appointed may be reimbursed to him from the funds of the committee.

Resolved, (2) That beginning July 1, 1904, there is hereby appropriated from the current revenues of this Association for the use of said committee the sum of, etc. (as in Plan A).

Mr. Cox stated that he was authorized to present this communication in behalf of the committee in the absence of the chairman, Mr. W. H. Elson, of Michigan, who was unable to be present. He further supported the communication and application with an argument for its favorable consideration and disposition, making reference to the expression of a large number of the active members of the Association which had been made strongly favoring the application of the committee.

An informal discussion followed, in which attention was called to the custom of the Board of Directors of referring applications for appropriations to the National Council for investigation and recommendation.

Director F. B. Cooper, of Washington, moved that the application be referred to the National Council of Education, with the request that it be considered, and recommendation thereon be made by its Committee on Investigations and Appropriations; seconded by Director A. S. Downing, of New York.

Edwin B. Cox: With your permission, Mr. President, and the permission of the Board of Directors, I wish simply to make inquiry with regard to the particular functions and duties, under the constitution of the Association, of this Committee on Appropriations of the Council, or of the Council itself, with reference to a question of this nature.

Director Nicholas Murray Butler: Mr. President, may I be permitted to answer that question? At the Washington meeting, in 1898, this board adopted a resolution covering this matter which it may at any time repeal if it so desires. This resolution provided that, in view of the large number of applications for appropriations which were annually coming before the board, all such applications should be referred to the National Council of Education for an expression of opinion as to the wisdom of such appropriations. The National Council thereupon constituted a standing committee, consisting of nine members, whose duty it should be to consider and report to that body on all applications for appropriations. Last year the business of the Council became so heavy, and the number of important requests to be considered and reported upon in a very short time so large, that the Council adopted a rule requiring a certain notice of application to be given in advance of the annual meeting. My understanding is that the rule has been complied with in the present case; so, to answer the question of my friend from Ohio, the pending motion to refer the application to the Council for recommendation is simply in accord with the procedure adopted by the board to govern the consideration of all requests for appropriations.

Director J. M. Greenwood: Supplementing what Director Butler has stated, permit me to say that under the pending motion (if passed) the application of the Committee on Amended Spelling will go to the Committee on Investigations and Appropriations of the Council, which will meet tomorrow afternoon at 2:30 o'clock, in the lecture-room of the Education Building; that all papers referring to this question will come up for consideration and discussion before this committee; and that the application presented by Mr. Cox will be then considered, in accordance with the usual form. On page 16 of the Official Program of this convention will be found the rule of the Council governing such business. As chairman of the Committee of the Council on Investigations and Appropriations, I wish at this time to invite Mr. Cox, and all others interested in these matters, to be present at the meeting of the committee.

Mr. Edwin B. Cox: The explanations given by Directors Butler and Greenwood are entirely satisfactory. As a member of the committee of the Department of Superintendence having this matter in charge, and as the representative of the chairman of that committee, I desire to say that I am perfectly willing, on behalf of the committee, to submit the application of the Department of Superintendence to the Committee on Investigations and Appropriations of the National Council, as provided in the pending motion.

Action was then taken on the motion, and the same was adopted without dissent.

Following this action, in answer to a question by Mr. Cox, explanation was made by President Cook, as follows: In accordance with the usual order, the Committee on

Investigations and Appropriations will report its action to the National Council. The National Council will then report to the new Board of Directors, which will meet in this room on Thursday afternoon at 4:30 o'clock, and this new Board of Directors will take action on the recommendation of the Council.

The secretary reported the receipt of a communication from Mr. H. Delmar French, an active member of the Association, on the subject of spelling reform, which he desired to have referred to whatever committee should be appointed to consider that subject. The letter of Mr. French and the accompanying documents were, on motion of Director A. S. Downing, of New York, referred to the Council to be considered with the application of the committee of the Department of Superintendence.

After various announcements by the secretary, the meeting adjourned.

IRWIN SHEPARD, *Secretary.*

MINUTES OF THE MEETING OF THE NEW BOARD OF DIRECTORS FOR 1904–1905

ST. LOUIS, MO., JUNE 30, 1904

The new Board of Directors of the National Educational Association met in the Model Library Room of the Missouri Building, Exposition grounds, at 4:30 P. M., June 30, 1904.

The meeting was called to order by First Vice-President John W. Cook, who presided in the absence of the president-elect.

The following directors responded to roll-call:

John W. Cook, Illinois; Albert G. Lane, Illinois; Irwin Shepard, Minnesota; Nicholas Murray Butler, New York; James H. Canfield, New York; Aaron Gove, Colorado; J. M. Green, New Jersey; J. M. Greenwood, Missouri; W. T. Harris, District of Columbia; T. Marcellus Marshall, West Virginia; Joshua Pike, Illinois; F. Louis Soldan, Missouri; A. R. Taylor, Illinois; A. H. Chamberlain, California; Miss Clem Hampton, Florida; W. F. Slaton, Georgia; May L. Scott, Idaho; J. A. Mercer, Illinois; T. A. Mott, Indiana; J. D. Benedict, Indian Territory; A. V. Storm, Iowa; J. W. Spindler, Kansas; S. L. Frogge, Kentucky; John S. Locke, Maine; M. Bates Stevens, Maryland; W. F. Kunze, Minnesota; R. B. Fulton, Mississippi; Ben Blewett, Missouri; R. G. Young, Montana; George L. Towne, Nebraska; A. S. Downing, New York; Lydia Yates, North Carolina; E. D. Lyon, Ohio; A. R. Hickam, Oklahoma; E. J. Johns, Jr., Tennessee; Alex Hogg, Texas; A. C. Nelson, Utah; L. D. Harvey, Wisconsin; Estelle Reel, Wyoming.

Number of directors present, thirty-nine.

On motion of Director J. M. Green, of New Jersey, it was ordered that the reading of the minutes of the last meeting be dispensed with, and that they be printed in the volume of *Proceedings*.

The next order of business being the election of a member of the Board of Trustees to fill the vacancy occasioned by the expiration of the term of service of Newton C. Dougherty, of Illinois, a motion was made and unanimously carried that Trustee Dougherty be elected to succeed himself for the term of four years.

On motion, Director W. T. Harris, United States Commissioner of Education, was elected to succeed himself as a member of the Executive Committee for the term of one year.

The secretary reported the receipt of a communication from the National Council, accompanied by a copy of a detailed report to the Council by the Committee on Investigations and Appropriations of that body.

At the request of the president, the communication was read, as follows:

ROOM OF THE NATIONAL COUNCIL, N. E. A.,
St. Louis, Mo., June 30, 1904.

Irwin Shepard, Secretary of the Board of Directors of the National Educational Association:

DEAR SIR: By direction of the National Council of Education, I herewith transmit a series of resolutions numbered 1, 2, and 3, for the consideration of the Board of Directors. The resolutions Nos. 2 and 3 embody the recommendations of the Council on a general plan and policy proposed for governing all matters of appropriations of money for committees of investigation, and for other purposes; and also the recommendations of the Council of certain appropriations to committees of investigations for the ensuing year.

Accompanying these resolutions and for the information of the Board of Directors is a copy of the full report of the Committee on Investigations and Appropriations of the Council, and a copy of a resolution (No. 4) which is submitted as a report of progress on the application for an appropriation by the Committee of the Department of Superintendence on the subject of Reformed Spelling, which was referred to the Council for recommendation by the old Board of Directors at its meeting held Monday, June 27, of the present week.

Respectfully yours,

(Signed) JAMES H. VAN SICKLE,
Secretary of the National Council.

RESOLUTIONS NOS. 1, 2, AND 3, TRANSMITTED BY THE COUNCIL

[NOS. 2 AND 3 BEING RECOMMENDED FOR ADOPTION BY THE BOARD OF DIRECTORS]

1. *Resolved*, That the report of the Committee on Investigations and Appropriations made under date of June 29, 1904, be accepted and its recommendations adopted.

2. *Resolved*, That the Board of Directors of the National Educational Association be requested to adopt the following rules of procedure to govern all appropriations:

(*a*) All appropriations for whatever purpose are chargeable against the current income of the Association for the year in which they are made. Unexpended balances will be covered into the treasury at the close of the fiscal year.

(*b*) When circumstances require, unexpended balances will be re-appropriated either in whole or in part, for the purposes for which they were originally made.

(*c*) All appropriations for special purposes shall be made subject to the requirements of the conduct of the ordinary business of the Association, including the salary of the Secretary and the expenses of his office, the expenses of the Executive Committee, the publication and distribution of the volume of *Proceedings*, and the usual miscellaneous and incidental expenses.

(*d*) When the current income of the fiscal year is more than sufficient to meet the cost of the conduct of the ordinary business of the Association, then appropriations for special purposes shall become available in the order in which they are voted by the Board of Directors.

3. *Resolved*, That the Board of Directors of the National Educational Association be requested to make the following appropriations for the fiscal year beginning July 1, 1904:

(*a*) The unexpended balance of the appropriation of $1,500 made July 9, 1903—namely, $1,109.29—and additional appropriation of $1,500, for the committee to inquire and report to the Council upon the Salaries, Tenure of Office, and Pension Provisions of Public-School Teachers of the United States.

(*b*) The unexpended balance of the appropriation of $1,000 made July 10, 1902—namely, $709.25—for the committee to inquire and report to the Council upon Taxation for School Purposes in the United States.

(*c*) The unexpended balance of the appropriation of $500 made July 9, 1903—namely, $312.05—and an additional appropriation of $500, for the committee to inquire and report to the Council upon Industrial Education in Schools in Rural Communities.

(*d*) The sum of $200 as a contribution toward the expenses of the Committee of Five authorized by the Department of Superintendence, February 25, 1903, to confer with the committees of other associations in regard to a Universal System of Key Notation for Indicating Pronunciation and to recommend a Phonetic Alphabet.

RESOLUTION NO. 4

SUBMITTED BY THE COUNCIL FOR THE INFORMATION OF THE BOARD OF DIRECTORS

Resolved, That the president of the Council be authorized and instructed to invite Calvin Thomas, of New York; George Hempl, of Michigan; Homer H. Seerley, of Iowa; and Charles M. Jordan, of Minnesota, together with the President of the National Educational Association for 1904–5, when elected, to advise the Council and their Committee on Investigations and Appropriations, not later than June 1, 1905, upon the questions stated in paragraph 7 of the report (the report of the Committee on Investigations and Appropriations. See minutes of the National Council for copy of the report).

Director A. V. Storm, of Iowa, moved that resolutions Nos. 2 and 3 be adopted as recommended by the Council of Education; seconded.

In answer to questions, Director J. M. Greenwood, chairman of the Committee of the Council on Investigations and Appropriations, explained that the effect of the resolutions, if adopted, would be that all future appropriations would be made for the current year only, and that they would become available only after the fixed expenses of the Association had been provided for.

A discussion followed on the subject of resolution No. 4, which was ruled out of order, since only resolutions Nos. 2 and 3 were included in the pending motion for adoption.

On motion of Director W. F. Kunze, of Minnesota, it was ordered that action on the two resolutions before the directors be taken separately.

Resolution No. 2 was then stated as before the directors for consideration.

After brief discussion, the vote was taken on resolution No. 2 and carried unanimously.

At this point President Cook withdrew to take charge of the vesper meeting at Festival Hall, appointing Director L. D. Harvey, of Wisconsin, to preside in his absence.

Resolution No. 3 was then stated as before the directors for consideration.

A discussion followed as to the scope of the work of the Committee on the Economic Status of the Teacher, in the course of which explanations were made by Director J. M.

Greenwood as to the scope and importance of the work of the committee in question, and by Director W. T. Harris as to the relations of that work to the work of the National Bureau of Education at Washington, in which both Directors Harris and Greenwood urged that the appropriation for the committee be continued and increased. The motion on the adoption of resolution No. 3, being put to the board, was carried without dissent.

Inquiry was then made as to the meaning of resolution No. 4, which was transmitted to the Council as a report of progress on the question referred to it by the former Board of Directors at its meeting June 27; viz., an application by a committee from the Department of Superintendence for the appointment of a Commission on the Simplification of Our English Spelling, and an appropriation for its expenses. After explanations had been made, resolution No. 4 was, on motion, received as a report of progress on the matter under consideration by the Council.

Directors A. G. Lane, of Illinois, Aaron Gove, of Colorado, and T. A. Mott, of Indiana, were appointed a Committee on the Nomination of Members of the National Council to fill vacancies occasioned by expiration of term of office and for other reasons. This committee was excused to prepare its report.

On motion of Director W. F. Kunze, of Minnesota, the sum of $400 was appropriated for the special expenses of the Department of Superintendence for its meeting to be held in Milwaukee, Wis., in February, 1905.

The next order of business was the consideration of invitations for the place of meeting for the forty-fourth convention in 1905. The chair requested the Secretary to call the roll of states in alphabetical order with the direction that invitations be presented in the order of the roll-call.

Under the call a communication was read by the secretary from W. C. Radcliffe, secretary of the Convention Bureau of the city of Detroit, Mich., affiliated with the Detroit Board of Commerce, inviting the Association to hold its convention for 1905 in the city of Detroit.

Director John Enright, of New Jersey, presented a formal invitation from the mayor and council of the city of Asbury Park, N. J., supported by the Board of Education, the Board of Trade, the Hotel-Keepers' Association, and other organizations, that the convention for 1905 be held in that city.

The secretary read an invitation from C. P. Thomas, president of the Business Men's Association at Saratoga Springs, N. Y., inviting the Association to meet in that city in 1905.

An invitation was presented by the city of Portland, Ore., and the authorities of the Lewis and Clark Centennial Exposition Company, supported by the educational and business organizations of Portland and the state of Oregon, to hold the next convention in that city in connection with the Lewis and Clark Centennial Exposition, with relations to the Exposition similar to those under which the forty-third convention is held in St. Louis in connection with the Louisiana Purchase Exposition.

This invitation was supported by Colonel Henry E. Dosch, commissioner-general and director of exhibits, representing the city of Portland and the exposition authorities, and Mr. A. L. Craig, general passenger agent of the Oregon Railroad and Navigation Company, in behalf of the transcontinental railway companies.

At the close of the roll-call, on a motion by Director A. S. Downing, of New York, it was carried by unanimous vote that all invitations be referred to the Executive Committee with full power to select the next place of meeting, and to make all necessary arrangements with local and transportation authorities for the next convention.

The Committee on Nominations to fill vacancies in the Council reported as follows:

To the Board of Directors of the National Educational Association:

Your committee respectfully nominates the following to fill vacancies in the membership of the National Council to be elected by the Association, viz.:

F. Louis Soldan of Missouri, to succeed himself, term to expire 1910.

L. D. Harvey of Wisconsin, to succeed himself, term to expire 1910.

R. H. Halsey of Wisconsin, to succeed himself, term to expire 1910.

C. G. Pearse of Wisconsin, to succeed himself, term to expire 1910.

John W. Cook of Illinois, to succeed R. G. Boone, term to expire 1910.

Your committee finds a vacancy, by reason of the absence from two successive meetings, of James A. Foshay, of California, and recommends that Mr. Foshay be transferred to the honorary list, and that the vacancy be filled by the appointment of C. N. Kendall, of Indiana, for the remainder of the term to expire 1906.

Respectfully submitted,

A. G. Lane,
Aaron Gove,
T. A. Mott,
Committee.

On motion, the report of the committee was received, and the secretary was instructed, by unanimous vote to cast the ballot of the directors for the nominees named in the report.

The secretary reported the ballot as so cast, and the chairman declared the nominees elected to membership in the Council.

There being no further business, on motion, the board adjourned.

Irwin Shepard, *Secretary.*

GENERAL SESSIONS OF THE ASSOCIATION

ADDRESSES OF WELCOME

HON. W. T. CARRINGTON, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION OF MISSOURI

Mr. President, Ladies and Gentlemen:

As I stand before you who contribute most to our country's higher life, to bid you welcome, I am filled with pleasure. Pride and gratitude contend for supremacy in my thoughts and for expression at my lips—pride in Missouri and her institutions, and gratitude for what you bring.

If you come from New England, where we were so cordially received last year, you will find men and women here by the thousand who are of your blood and of your habits of thought, anxious to take you into their homes and hearts. If you come from the sunny Southland, whose fairest city of culture and refinement but recently entertained us most hospitably, you will find here brothers in purpose and feeling, ready to provide whatever will contribute to your pleasure. If you come from the far West, you will find that Missouri herself is western and our meeting today but a family reunion. All your elements, whether from East or West, from North or South, are so mixed in us as to make us catholic. We boast of our cavalier ancestry, of our Puritan instincts, of our Dutch persistency, and of our Yankee pluck.

Situated in the heart of the greatest nation of all times, by the process of natural selection Missouri has developed a cosmopolitan culture. The fullest expression of this broad spirit has been along educational lines. A well-articulated system of public schools, from the kindergarten thru a great university, bears us testimony in the hearts of three and a half millions of loyal Missourians.

In a dozen years our State University has grown from a small school of liberal arts into an institution having a faculty of more than a hundred specialists and a student body of several thousand—an institution offering special, technical, and professional instruction of the highest order.

Our normal schools have expanded into teachers' colleges. They now offer every grade of academic instruction leading to the bachelor's degree. They give special training for the kindergarten, for primary grades, for rural school-teaching, for supervision in special lines, and for departmental work in our high schools

With the growth and expansion of our higher educational institutions, primary and secondary schools have kept pace; more, they have led the way.

In a list of five hundred public high schools are many that have incorporated manual training and such industrial arts as agriculture, horticulture, and domestic economy. In all of these the cultural and the practical are so blended and related as to secure results satisfactory to the strongest advocates of the classics.

On behalf of the ten thousand rural school-teachers who are solving the problem of bringing school life into close, sympathetic touch with the natural, industrial, and social environments of the community; on behalf of the six thousand city teachers whose conceptions and skill you may find illustrated in yonder palace of education; on behalf of those who teach in parochial, private, and higher institutions; on behalf of all who teach and contribute to education in Missouri, I bid you welcome.

On account of the unavoidable absence of Missouri's chief executive, it becomes my duty and pleasure to extend the states' welcome also.

When the happy thought of celebrating the first great expansion of national territory found expression, rural Missouri joined her Queen City in contributing wealth and genuis in promoting so worthy an enterprise. It is called the World's Fair, for the activities and results of education from every quarter of the globe are exhibited here. However, Missouri has more than ordinary interests; and on behalf of the entire state we bid you take in the entire exposition and enjoy it.

If you can prolong your visit a few days, we will show you a most prosperous and cultured city—a city of good streets, fine homes, elegant churches, and prosperous business; a city having the best-organized and most economically managed system of schools in this country, and a municipal government that has set up high standards of civic improvement, civic order, and civic righteousness.

If you can spend a month with us, we will take you to rural Missouri and show you good old-fashioned country hospitality. You will find our broad prairies and fertile valleys teeming with business enterprise and rapid material development. You will find a citizenship God-fearing, liberty-loving, vice-condemning, and culture-inspiring; a citizenship more worthy to be crowned than any noble Roman.

If you cannot take time to see our state as it is, an empire within itself, let me insist that you do not fail to inspect our great exhibits of agriculture, of horticulture, of live stock, of mineral wealth, and of the thousand and one contributions we offer in the fields of science and art in these exhibit palaces all around us here.

But we are not proud of our material progress and prosperity except in so far as they indicate a wise and patriotic citizenship; except as they are an outgrowth of thoughtful and purposeful living.

We welcome you to a state which takes pride in its great variety of natural resources and material development. We welcome you to a state devoted to education and high ideals. These are results of a cosmopolitan view of life;

for mirrored in Missouri's institutions are the highest and best things drawn from all sections.

We thank you in advance for your mature thoughts and words of wisdom. We shall delight to sit at your feet and learn. Your presence will stimulate and hold us above the fog of local prejudice where we can see life in all its breadth. It is therefore with mingled pride and gratitude that I extend Missouri's most cordial welcome.

C. M. WOODWARD, DIRECTOR OF MANUAL TRAINING SCHOOL OF WASHINGTON UNIVERSITY AND PRESIDENT OF BOARD OF EDUCATION, ST. LOUIS, MO.

[STENOGRAPHIC REPORT]

Mr. President, Ladies and Gentlemen—Fellow-Teachers from all corners of the Republic:

I appear before you not only as the representative of the public schools of Missouri, but I appear for the moment as the chairman of the Local Reception Committee. I wish to say to you that that committee has done its best to make you comfortable, to see you safely and conveniently to your homes in this city. We attempt no social functions. We have merely made the best effort we could to provide for your keeping and for your comfort while you are here.

On the part of the Merchants' Exchange, the officers, the president, and the chairman of the Entertainment Committee, I invite you to visit the halls of the Merchants' Exchange. Your badges will be sufficient introduction.

I wish to speak a word for the teachers of St. Louis and for the school board of St. Louis. I wish to welcome you to this great city, beyond the Father of Waters to the most of you—to a city which you may have supposed to be scarcely out of the backwoods, but which you will find beautiful, comfortable, and grand. It was here that Dr. William T. Harris won his spurs. When I came to St. Louis, nearly forty years ago, I met Mr. Harris, who was then principal of one of our grammar schools. He soon became assistant superintendent; he then became superintendent; and I worked along with him in the interests of education. Then he went on and on, and now occupies the highest position in the educational work of this great people as the Commissioner of Education of the United States.

I wish to welcome you to a city that within twenty-four hours lived under three flags. One day the flag of Spain was pulled down, and the flag of France went up. The next morning the Tricolor came down, and the Stars and Stripes went up; it has been up ever since.

I wish to welcome you to the city that has the greatest engineering work in the country—an engineering feat which is unique in the whole scientific world. I refer to the great steel arch known as the Eads Bridge—a structure which combines strength and beauty and all the finish of mathematical analysis. There is nothing like it in the world. There never will be another like

it; and if there are those of you who thrill with pleasure in the presence of art and applied science, it will gratify them to know, as they behold that wonderful structure, that it is not only a thing of beauty, but is abundantly strong.

I wish to speak of our schools. With other good things in the city of St. Louis, the people have good understanding. They understand well enough to elect a school board and leave politics out. Two thousand teachers are at work today in this city who know that their tenure of office depends only upon their faithful service and not upon their political affiliations. If these schools were in session, how welcome you would be to see their work! We should welcome you to a hundred free public kindergartens. We should welcome you to all our splendid new buildings. There are several things we know how to do: we know how to build good school buildings; we know how to select good teachers; we know how to equip schoolhouses as they ought to be; and the people know how to fill them.

I wish to invite you to inspect our school buildings. The schools, in accordance with the fashion which we are bound to obey, have suspended for the summer, but our schoolhouses are open. The McKinley High School, our latest effort in building; a manual-training high school; the Emerson School; the Eugene Field School; the Wyman School, are easily reached. We have instructed the janitors and those in charge to open the doors and let the teachers in, with or without badges. You will be welcome at all these thruout the week.

There is another reason why I wish to welcome you. It was here that the first manual-training school was established just twenty-five years ago. When I went to the exhibition in Philadelphia in 1876, there was not a school exhibit from any place in the United States that had any manual training in it. You go now to the Palace of Education and you find there not a school represented that does not have manual training in it; that is the progress of twenty-five years.

When President Eliot was out here last Christmas, he praised us to our faces so that we actually blushed. He told us of our fine organization and of our good work. I had no idea that we had such a fine board of education until he told us. And then he has been talking about it all over the country, until we are actually puffed up with pride. Some of you may have known Superintendent Soldan when he was a thin young man; but just look at him now: he is puffed up with pride over the success of our schools and of his World's Fair exhibit.

You may be very sure we are all glad to see you; glad to have you with us, and enjoy with you this week of intercourse. We trust that you will go away with the feeling that St. Louis is a cordial city, that it is a progressive city, and that it is a city which you will be glad to visit again at some future day.

F. LOUIS SOLDAN, SUPERINTENDENT OF INSTRUCTION, PUBLIC SCHOOLS, ST. LOUIS, MO.

[STENOGRAPHIC REPORT]

Mr. President, and Members of the National Educational Association:

It would be bad taste for representatives of St. Louis to speak of their own city and the present condition of the schools in fulsome terms of praise. They are what they are; they are not merely what the teachers of St. Louis have made them, but they are what the teachers of the country have made them. The influence of this great Association extending thru many years, the influence of the improvements of schools everywhere, in city and country, have reacted on the city school systems everywhere. Every teacher in the land who is progressive, and shows improvement in method and intelligent care in teaching, helps to shape the schools of all other sections of the country. The teaching professsion in the whole land is in close touch. The achievement of one is the common property and credit of all. In this sense, I repeat, the schools of St. Louis are not merely what her own faithful corps of teachers has made them, but, like every other city system, they embody the influence of the teachers of the country. They share in the general progress.

While it may not be proper to speak in terms of praise of the present system of schools in St. Louis, it may be permissible to speak of past achievements as historical facts without undue egotism or pride. I wish to add three things to those which my friend, Dr. Woodward, has mentioned as having emanated from St. Louis.

There is, in the first place, that great beginning of a forward movement in common-school education thru that master-mind who, while in charge of the St. Louis schools, opened thru his reports and addresses a deeper insight into the importance of the daily process of teaching. He was the first to give a philosophic background to the everyday lessons in arithmetic, or geography, or history, and to show their importance in opening the windows of the young soul and leading it to master the world. I refer, of course, to our esteemed friend, Dr. Harris.

Professor Woodward could not speak of the second important fact in the history of American education in which St. Louis is especially concerned—the fact that the idea of the manual-training school emanated here. It was Professor Woodward who introduced this leaven, this powerful agency for progress, into the schools of the United States.

As a third feature originating in this city should not be forgotten, when the teachers of the nation meet in council, that St. Louis is the foster-city of the kindergarten. Here it originated; here it has thriven; from here it has spread. Miss Blow, its inspired advocate, is a St. Louis woman. Former St. Louis teachers are in charge of kindergarten systems in other cities. The importance of the kindergarten can hardly be overestimated. It is important in itself; it is still more important on account of the influence its principles and practices have had on education in general. Its silent and more potent indirect influ-

ence has extended from the primary grade up thru all the grades unto the universities of the country.

However, I am here to bid you welcome on part of the teachers of St. Louis. Do you wish to know how many of the teaching profession of the city join me in this welcome? Look at the roll of membership in the hands of the Secretary, and you will find that our St. Louis teachers, two thousand in number, have become members of the Association in welcome of its presence, in appreciation of its importance. In the two thousand there are included, not merely the public-school teacher, but also the teacher of the private school, the teacher of the parochial school, of the Roman Catholic institutions in the city: all have joined our executive committee to prepare the way for your presence and to welcome you to our gates today.

The welcome extended to you by the teachers of St. Louis is a cordial one. The spirit of professional unity is strong among the teachers of our city. In our school system the rank and file of the teaching profession exerts a direct influence on the administration of the schools. There is no text-book used in the St. Louis public schools which has not been selected, or approved, by a majority of the teachers in the service of the board. The course of study at present in use in the public schools of St. Louis has been elaborated by the teachers themselves. The teachers of the city, thru their committees numbering over a hundred, and representing all the grades and every part of the city, met in conference and adopted a course of study which was approved by the superintendent and the board. It is the work of the rank and file of the profession. Even in regard to the details of school administration, it is the practice in our city to consult the judgment and experience of the teacher. When the contracts for the annual supplies of school material are awarded to commercial houses, the teacher has a voice in selecting the tools with which she works. The pen, for instance, with which the children write, is not selected by a committee of business men, well-meaning, but not knowing the details of school work and the needs of the children; it is selected by the teachers that teach writing. Similarly, every article in the long list of schoolroom supplies is selected by the worker and the expert. I extend to you the welcome of a corps of teachers who, under the law and under the provisions of the board of education, are allowed to bring their expert judgment to bear on the management and administration of the public schools.

When, before the beginning of this meeting, in a conversation with a friend, I mentioned that I did not quite know what topics to touch upon in my brief address, he said, jokingly: "Speak about the weather; that's in everybody's mind." Perhaps he is right, and a word of explanation is due to you in regard to it. It is true that the weather is too cold for comfort. It is equally true that it is an unexpected predicament for a resident of St. Louis to be compelled, at the end of June, to apologize for the coldness of the temperature. Madame de Staël said: "When you fully comprehend a thing, you will pardon it." If you know the history of this unprecedently cold June weather, I know you will pardon it.

A year ago when my colleagues and myself went to Boston to ask the National Educational Association to meet in St. Louis, the great objection offered by everyone was this: "Your horrible weather stands in the way—your horrible heat during June and July." I did not blame my friends for their fear, because the hottest wave of the year had struck Boston at that time and the air was like the blast of a furnace. I had to meet the same objection to St. Louis in the Board of Directors, when I urged them to locate the meeting here. I had been present during the last thirty years again and again when our sister-cities in the South asked for the convention, and there was one favorite argument advanced almost every time when the weather was objected to: "Why, in our summer months you can sleep under blankets!" When I advocated the claims of St. Louis, I thought I ought to make that old phrase do service, and I said: "If you come to St. Louis in July, you may sleep under blankets; but," I added, truthfully, "I should not advise you to do so." Kind Providence has made the first part of my invitation an unexpected reality.

You now fully comprehend the presence of the cold wave, and I hope that, in accordance with Madame de Staël's maxim, you will pardon it. Yet you have felt uncomfortably cool, and, of course, the matter must be stopped. Even without consulting with the local executive committee, I promise a change very soon.

And now, in conclusion, I bid you welcome on behalf of the public schools of the city, of their teachers, their friends, and their eighty thousand children. I welcome you as representatives of the cause of education which is the blessing of the past, the glory of the present, and the hope of the future.

HON. ROLLA WELLS, MAYOR OF ST. LOUIS

[STENOGRAPHIC REPORT]

Mr. President, Ladies and Gentlemen:

I see in this auditorium men and women upon whom the future prosperity of this nation depends. In your professional capacity you stand between the state and the home, charged with the earnest and difficult duty of inculcating in the rising generations those principles which make good citizens, and, therefore, good men and true women. You represent a force that is greater than the government itself; for the country must look to you for the perpetuation of sincere manhood and pure womanhood.

Your influence is not confined to the army of pupils you are preparing to cross the threshold of life, nor is it limited to this generation or to the next. It is a power that will impress itself upon the annals of this country thru many years. Long after all of us shall have gone, your sway will be felt.

The convention which you have begun today is not of pleasure alone. You have come to discuss and consider subjects which will aid you in making your arduous work the more effective. You are here as students to learn

from each other valuable lessons gleaned from experience in your several fields of activity.

This city which you have chosen as your meeting-place has ever recognized the importance of education. Our citizens feel a keen interest in the affairs of the school and a paternal desire for the intellectual and moral advancement of the young. This interest, under the management of our board of education, has developed a public-school system of which we may well be proud. We are proud of our schools. We who make this city our home are well content with its past history; we are satisfied, regardless of some imperfections, with its present; and we have every confidence in its future.

I extend to you a most cordial welcome to St. Louis. I trust your deliberations may be most profitable, and your visit with us most enjoyable.

HON. DAVID R. FRANCIS, PRESIDENT OF THE LOUISIANA PURCHASE EXPOSITION COMPANY

[STENOGRAPHIC REPORT]

Mr. President, Ladies and Gentlemen:

On behalf of the Universal Exposition, I desire to express the appreciation of the management of this Exposition of this body of representative educators of the country. If there is any class of people whom we are more than pleased to welcome in these grounds, it is that great body of teachers who prepare the minds of the people of the United States and of the world to appreciate this Universal Exposition which we have here installed.

This Exposition, as you know, is held to commemorate a great event in the history of the country, and until the attention of the people thruout the country was called to the Louisiana Purchase by the celebration that was proposed, but a comparatively small number of them knew what the Louisiana Territory was, or how it was acquired. From the time that this celebration was first spoken of, six years ago, more has been read and learned about the Louisiana Purchase than was ever known thruout the United States before. The very talk of the celebration, therefore, was educational; and that educational motive has followed this enterprise from its beginning.

The management of the Exposition has been claiming, and I think not entirely without grounds, that this Exposition is a university in itself. We feel that its educational benefit far surpasses all of its material force. We have classified all of the products here exhibited, but this Exposition is not confined to an exhibition of material. We purpose to include here not only that which the hand of man has wrought, but the best that his brain has conceived. The intellectual exhibits, or international congresses, that have been arranged for in connection with this Exposition will, in our judgment, be a marker in the thought of the world. No congresses of such a character have ever been planned, certainly not upon so ambitious a scale. In the classifica-

tion of this Exposition we think that there has been manifested a higher grasp of the achievement of man—of his development.

The very first department, Department A of this Exposition, is Education. It is therefore eminently fit that a meeting of the National Educational Association should be held within the grounds of this Exposition. In our international congresses we have sought the aid of the cultured minds of this country. We have called to our assistance a great wealth of intellect, as you will see by the names of the men who are on the administration and the advisory committees. The chairman of the advisory committee is a prominent and active member of this Association, Dr. Nicholas Murray Butler, president of Columbia University. He has associated with him six distinguished educators, and they have appointed an administrative board of five. By their joint work these international congresses have been arranged. I am not anticipating their work, but I have alluded to it only to call your attention to the classification of the congresses, to the classification of all the branches of human knowledge, and to say to you that the object of those international congresses is to demonstrate the unity of all knowledge, to show the relation of all branches of knowledge to each other. Ambitious it may be, and its results may be disappointing; but I think not. It is the first effort of that kind ever made in the history of the world; and this Exposition, comprehensive as it is in every line of human endeavor, will, in my judgment, be about the last exposition of this universal character that will be held, during this generation at least. I make this prophecy, that these international congresses which have been planned in connection with this Universal Exposition will be the precursor of other international congresses, in which, or thru which, this ambitious effort to demonstrate the unity of all knowledge may be pursued, and may be followed to a successful conclusion.

I shall not attempt to detain you by speaking of the various features of this Exposition. I only ask you to remain with us long enough to give it a personal inspection. See for yourselves. It is impossible for anyone to grasp all that is in this Exposition within the short period of one week. A month is inadequate. We trust you will remain here sufficiently long to conclude your deliberations, and, when you adjourn this convention, that you will remain with us as individuals, or will make a return visit before the Exposition closes. We may be pardoned for cherishing a pride in this Exposition, which has surpassed even the expectations of its enthusiastic originators. We may be pardoned for calling attention to the fact that the people of other countries, and the people of some sections of our own country, expressed doubt, when the Exposition was first mentioned, as to our ability to install a universal exposition within the limits of the Louisiana Territory that would compare favorably with previous international expositions held in this country and in Europe. If there is any man who has visited this Exposition, whether he may live in the United States or abroad, who will say that this does not compare favorably with any exposition ever held, that man has never made his

conclusions known. We think, therefore, that we are justified in asking a thoro inspection of this Exposition by you who belong to a class of workers that have made it possible.

Foreign countries are participating to an extent never known before. Why? Because of the curiosity they cherish concerning the people who have made such wonderful progress within so short a period as a century and a third. We tell them that this progress has been achieved because of the universal education of the people of this country. We say to them that, altho we govern ourselves, altho there may be a change in administration, or a change in the policy of this country once in four years, never for a moment do we lose faith in the stability of our institutions; and that we cherish this confidence because of the fact that everybody in this country is educated. We think that general education is the very foundation stone of our republican institutions. We, therefore, as I say, welcome the teachers more heartily, if comparisons are permissible, than we do any class or profession of people of this country. We welcome you not only for what you have done, but we welcome you for the intelligence with which you can take advantage of the Exposition that has here been installed. We know that you will view these exhibits with a critical eye, and be prompted, not by curiosity alone, but by a desire to take advantage of what has here been done, not only for your own information, but also for the purpose of benefiting the children who are under your tutelage. I say, therefore, in view of these facts, that there is no class of people whom the Exposition management welcomes more cordially. There is no class of people who are so well qualified to appreciate this Exposition.

When I entered this hall, a gentleman was standing on the platform addressing you, and the scenes of my youth were immediately recalled. Thirty-seven years ago I came to this town as a schoolboy, and upon entering Washington University I saw Professor Woodward standing just as he was standing today, demonstrating to a class the principles of mathematics. He has been connected with the educational interests of this country from that day to this. I do not know how long he had been before I saw him, and that was thirty-seven years ago; but I do know he has been teaching, and devoting his life to the advancement of education in this section, and every section of the country. He spoke to you of the manual-training school. He is the man who first established a manual-training school in St. Louis, if not in the United States. He, as you know, was sent for, and went to Manchester, England, to teach the people of that country about manual-training schools. He has not confined his energy, however, to manual-training schools, nor to Washington University; but he has been deeply interested in the public schools of this city, and has been active in working for them for over a quarter of a century.

Such men as those who have talked on this platform this morning, and as those who are leaders in this organization, are the men who are more influential in establishing this government upon a firm foundation than any class of men that can be selected in any pursuit of life.

It is not only what you teach from books, but the principles that are inculcated by the teachers of this country, that makes good citizens. We, therefore, again, if you will permit me to repeat it—by "we" I mean the Exposition management—extend to you a most cordial welcome. We trust your stay with us may be pleasant and profitable; and when this beautiful city of palaces shall have disappeared, when the gates shall have closed, when these structures shall have been removed, and this Universal Exposition has become a memory, you will still be demonstrating by your work the incalculable benefit to the human race of this great gathering of all the peoples and all the nations of the earth.

HON. HOWARD J. ROGERS, CHIEF OF THE DEPARTMENT OF EDUCATION AND DIRECTOR OF CONGRESSES OF THE UNIVERSAL EXPOSITION

[STENOGRAPHIC REPORT]

Mr. President, Ladies and Gentlemen:

On behalf of the Department of Education and the Department of Congresses, I desire to extend to the National Educational Association, to the delegates of the United States government, and to the delegates of foreign governments to the International Congress on Education, a most hearty welcome. Others have greeted you in the name of the city of St. Louis, of the state of Missouri, and of the Exposition as a whole, but I wish to extend to you the thanks particularly of the educational side of this great Exposition.

When we presented to your Board of Directors last year the proposition to come to St. Louis, and when it was accepted, we knew that you were running some risk and making some possible sacrifice: risk, in that you were obliged to forego the peculiar pecuniary advantages which have always been extended to you by the railroad authorities; and possible sacrifice, because it was not at all certain that the calm deliberations and careful investigations which have hitherto characterized the meetings of this Association might be possible of attainment in the midst of the diversities, distractions, and unnatural atmosphere of a great exposition. But when we presented to your board the idea that the foundation of this Exposition was purely educational; that the appeal to Congress for funds, to the states for support, and to foreign nations for co-operation had been made upon this basis, they were quick to see the inconsistency of the greatest educational organization in the world meeting in any other place in the United States than that in which the entire educational growth of the world was pictured and set forth. That action we highly appreciate, as it gave us the stamp of approval of your great Association for the efforts which have been made in connection with this Exposition to place it upon a plane which should be thoroly in line with your own aims and purposes.

Education in its broadest sense was meant in our statements published to the world: the education which comes to a people from observing art and

architecture in heroic models; from observing exhibits grouped in relation to their interdependence upon each other; and from watching processes, in connection with those exhibits, which take the raw product, and under the eyes of the beholder transform it into the finished product, ready for the markets of the world. We felt that in doing this we were offering this Association a fair *quid pro quo* for the non-fulfillment of some of the many features which have always characterized the annual convention of this Association.

I close with this remark, that this is an exposition of opportunity to every member of this Association. If you come here at the close of the school year ready and eager for more mental discipline and development, you will find it in the study of the architecture of these great palaces, and in the study of the myriads of exhibits which fill them. If you come desiring physical exercise and development, you will gain it with the utmost rapidity in walking over the 1,240 acres inclosed within our gates. If you come desiring complete mental rest and relaxation, you will find it in a place specially provided for this purpose—"The Pike." All of these opportunities we extend to you most cordially, and trust that you will stay with us long enough to embrace them all.

CHANCELLOR W. S. CHAPLIN OF WASHINGTON UNIVERSITY, CHAIRMAN OF THE LOCAL EXECUTIVE COMMITTEE

Mr. President, Ladies and Gentlemen:

It has been, for many centuries, a great honor to come last; but on this occasion the fact that so many and so eloquent speakers have preceded me is somewhat embarrassing. I leave it to you that the ground has been well covered. Therefore I shall take but a few minutes of your time.

I wish to emphasize one fact; that is, that in Missouri, in educational matters, we not only stand well, but we are advancing, advancing rapidly. The public schools, the city schools, the colleges, and the universities are all moving forward.

I want to call your attention to the fact that this Exhibition, this Louisiana Purchase Exposition, is the first one that has ever given the highest prominence to the subject of education. It is a mark of the intelligence of the governing body of this Exposition that its chief department, the one to which it has given the most prominent place and on which it has expended the largest amount of money, is the Department of Education. We are grateful for this, and we are grateful to those foreign countries which have made their greatest exhibits in the educational department. Look over these buildings and the displays therein, and you cannot fail to recognize that education is the one subject by which they wish to be judged. I may say further that the best exhibits we have from the foreign countries are the gentlemen who have come here to arrange the objects and to explain them to us. I have never seen a gathering of such expert expositors as these gentlemen are. Go to any of them freely, ask questions of them freely, and freely and gladly they will answer your

questions. I think it will be recognized as one of the marked characteristics that this Exposition is devoted largely to education, and that the men who have come here to exhibit are fair exponents of the educational condition of their land.

We welcome you here. We welcome you because it is always pleasant to meet educated people. It is pleasant to meet people with a high mission. Then we welcome you because we expect to gain much from you.

I wish Superintendent Soldan and Professor Woodward had spoken more of the school system of St. Louis. Perhaps it was modesty that prevented them. Modesty seldom restrains me, and in this case it has no play whatever. I wish to claim that the city of St. Louis has the best school law in the United States, and then I wish to claim that it has a school board which has not yet been tainted with the least suspicion. It is absolutely honest, and the difference between the present board and the board of a few years ago is a saving of three hundred thousand dollars a year, which can be put into school buildings. I believe it is a fact that after the school board of the city of St. Louis has chosen its heads of departments, it cannot name a single teacher, or janitor, or official for a position. The head of the department names, and the board can approve or not, as it pleases. Thus far, the rumor says, it has always approved.

I wish further to call your attention to one thing which may possibly escape you, and that is that the school buildings erected under the present school board are the best school buildings erected in the United States, and that they are erected at a smaller cost per cubic foot capacity than any other buildings of their class in any great city. This is the result of simple honesty and business methods.

There is a special reason why I should speak of the higher education in this state. We have more colleges and universities in the state of Missouri than has any other state in the union, and we are sorry for it. Colleges, unfortunately, never die. They live forever. And yet the college condition in this state is improving. The State University is making splendid progress; and the other institutions are doing their very best. In the name of these colleges, I welcome you here, and I feel that, if all the other 599,999 of the population of the city of St. Louis were to speak, they would all say the same thing—a hearty welcome.

RESPONSES

WILLIAM T. HARRIS, UNITED STATES COMMISSIONER OF EDUCATION, WASHINGTON, D. C.

[STENOGRAPHIC REPORT]

Mr. President, Gentlemen and Ladies of the National Educational Association:

In behalf of this Association that has come up from all the states and cities of the country, at the invitation of the directorship of this great Exposition, I

acknowledge the cordial and hearty welcome which we have received here. We have come to observe this great Exposition, in the first place; the latest great international object-lesson of the last fifty years, of a long series extending back to the first beginning, in 1851, in England, the tenth and greatest object-lesson of them all. It should call all the teachers of the country to see it, and the teachers will respond, if not now, at least before the close, in the last days of November.

I would say that we are here, first of all, to study the Exposition itself; the exposition of the industries of all people; not merely the industries of the United States, but the industries of Europe, and of South America, and of all parts of the world. Generous and friendly nations have sent here their results, in order that they may compare them with ours; in order that they may show us their processes; and this of all expositions is an Exposition that is meant to show the processes of industry, laying great stress upon that; so that it is in a much higher sense an object-lesson that is educative in its character than perhaps any other international exposition that has ever been held. We behold here the results. We have come here with the conviction that the schools have had a great deal to do with our industrial success. The school has contributed to this enormous, this colossal, result which we see here. It has done this by making the children alert and observing, able to learn not only from their own seeing, but to learn from the ideas of another. When we are asked, what does the school do? What is the meaning of the school in general? We reply: School means that children are not only going to have their own observations and ideas, but that they are also going to learn from teachers and other pupils, going to reinforce their own with the ideas of others, increasing by the total observation of mankind, and learning to get hold of, from day to day, the ideas of the world.

Now, these world-industries will at first appear to us in their products—the first glimpse we get in studying this great object-lesson is a view of the net results. Next we look at the processes; and then we begin to see how this vast collection of productions, natural and manufactured, relates to the lessons which we give in our schools. In thinking out this relation we first divide our school work into study of nature, learning how nature may serve man; learning the conquest of nature by the means of a study of its laws and the applications of science to the invention of machinery. This first lesson, you may say, is materialistic; the satisfying of the wants of food, clothing, shelter, and amusement. Then, in the second lesson, we see that this great Exposition connects with our own history, our own borderland of history; and thru these borderlands we connect with other nations that have preceded us. We shake hands with Spain and with France, on this very territory of the Louisiana Purchase, and here we are constantly reminded historically of the significance of these two national elements, the Spanish and French, in the history of the world; what a part they played in the discovery of America, and in publishing an inventory of its resources to the old world of Europe. We come next, with

these historical reflections, to contemplate the epoch of colonization and the growth of our own nation, and that of our sister-nations south of us; we begin to see in the Exposition, at every point, the potency of science, its new discoveries that from time to time have been utilized in inventions that increase our productive industry; and then we connect this with specialization by which science is developed and perfected, and we see how the mathematics which we teach in our schools makes possible the application of science to machinery.

But it is not merely luxury and its production that we look for in this great Exposition, and our point of view is not chiefly a materialistic one. It is not merely the conquest of nature, not the mere subduing of nature by man; but it is rather the spectacle of the process that makes everything useful, and more specially makes it subserve to unite man with man and nation with nation in peaceful and helpful ways. This union of man with man is the spectacle that creates in us the spirit of the great thought of our religion which tells us that God made this world as a place for man—for man to be born in, to grow up in, and above all to come into communion with his fellow-men. We see that this conquering of nature is spiritual in itself. We turn from that side, which I have called the material side of this Exposition, to the spiritual side; from the conquest over nature, to those studies in our schools which relate especially to the lifting of our people into spiritual communion with the rest of mankind. We have languages in our schools, we have history, and literature, and art; and of all places, the World's Fair is the place to study art. Every product of industry reveals the taste of the people that have prepared it.

I spoke of the generous and friendly nations that have sent their educational exhibits here. They wish in return to see the best that we can produce. The magnificent building prepared by the board of directors of this Exposition for education and sociology shows what our country is doing in education and reveals ideals toward which we are striving. In the exhibit of the Bureau of Education we have brought out the statistics of our national progress, showing by charts the proofs of our rapid growth, and of the completeness with which we are reaching all classes of our population. In this great Exposition we are to study the educational exhibits of Germany, of France, of Belgium, and of the Scandinavian countries. We are to study those of Great Britain and her colonies, of Spain and our Spanish-American sister- republics on the western continent, of Italy and Austria and Japan; and that brings us only to the middle of the enumeration. These great nations come here with their exhibits, and in them they do not reveal quite the same spirit as that which we should observe in studying their exhibits in their own countries. That is to say, the exhibits here do not to so great a degree show the idiosyncrasies of the several nations. Each nation tries to hold back somewhat its idiosyncrasies, and makes concessions to foreign public opinion, and makes a display that will harmonize somewhat with the country to which it comes. When nations collide in war they put their idiosyncrasies into play as items of

strength and make what they can out of it in their struggle one with the other. But in a peaceful contest like this each one tries to show such of its products as are useful and valuable to all mankind. It wishes to come into closer relation with the nation in whose international fair it exhibits. And, of course, it is the object of all contributors to the educational exhibits here, and to the display of material industries, to excite interest in what they have been producing; and it is our great object to learn something from each that is instructive to us.

This great Exposition is something that I suppose I take a great deal more pride in than some of you; I am especially proud of this city, and of the men here who have made it, many of whom I have known since early years. Professor Woodward I have known for thirty-seven years, and in the thirty-seven years that I have known him I have received great help from him; and one of the pleasures I have from year to year in looking around the United States is to see that there are monuments to that man in nearly every city or town of any consequence in the country; and those places that have not as yet erected monuments to him are thinking of building such this fall or at some early date. I consider every manual-training school built in the United States a monument to Professor C. M. Woodward. We have two of them in Washington dedicated the past year. The William McKinley Manual Training School is one of these monuments to Professor Woodward, and I had the pleasure at its dedication to mention this fact to the people of our national capitol. And there, too, is my friend Dr. Soldan. He was strong and healthy always; always good, always refined, always conscious of good forms; himself a learned man and busied on problems of education, he was always helpful to people concerned about the education of the people; and his splendid success as superintendent of the schools of St. Louis rejoices the hearts of all teachers and school managers in the land.

I wish that somebody had been chosen especially to speak here of Washington University in St. Louis—a university that was founded and has been conducted on the highest ideals from the beginning, by men who had that patience and "sufferance sublime" which Emerson speaks of as matching "the taciturnity of time." And they could afford to wait for the maturity of this university. They said, when the university had become established: "We will have everything on a solid basis, all thoroness and nothing for mere show, and we shall be perfectly satisfied to graduate a small class this year." That was forty years ago. They were satisfied to graduate only a few, but those on a high standard, and they have kept up that standard ever since. And this Washington University was started in those days by one whose name is held in great respect in the West and in the East—Dr. William G. Eliot, of whom all St. Louisians are proud and always will be proud. His biography has recently been written and published, and everyone can read it and understand why he was and is honored. He was one of the wisest of men, and his hand and brain were incessantly at work devising good. He

anticipated the future. He knew these results would come out as they have, and Washington University, presided over by its accomplished and able chancellor, is now endowed in such a way, by generous business men of St. Louis, that it has an assured future as one of the greatest universities of our country.

CHARLES D. McIVER, PRESIDENT OF STATE NORMAL AND INDUSTRIAL COLLEGE, GREENSBORO, N. C.

[STENOGRAPHIC REPORT]

Mr. President, Ladies and Gentlemen:

I am reminded of a little experience that I once had when a party of gentlemen were visiting a great industrial school. On a special occasion we were called, after inspecting the various departments, to a hall, where a number of us were called upon to make short talks; and a man who came about eighth or ninth on the list said that while he was going thru the wheelwright department he heard one suggestion which he thought came in just at that moment, and that remark was: "The longer the spoke the greater the tire." It is a great temptation to any man to speak to an audience like this longer than he ought to speak, and if one who is full of enthusiasm, and who is also proud of his profession, would follow the inclinations of his heart, he would consume so much of your valuable time that some of you would be like the old man in church in those days when preachers preached sermons that were remarkable for their length. In the instance to which I refer the preacher was preaching on the subject of the major and the minor prophets. He had preached on the subject of the major prophets for one full hour, and on the minor prophets for one full hour, and being in doubt, at the end of this time, as to whether Hosea belonged to the major or the minor class, he exclaimed: "But where shall we place Hosea?" An old fellow in the back of the audience got up and said: "Pa'son, you can just give Hosea my seat, for I'm going home."

But, speaking seriously, for the cordial welcome we have received I wish to give thanks to these gentlemen representing the state of Missouri and its institutions, to the representatives of the city of St. Louis and its great school system, and to the authorities of this magnificent Exposition. I tender the thanks of this Association to them for the instructive addresses that they have made; and if any of them—Mr. Soldan or the others who have been compelled to speak well of their own work—felt the least bit of embarrassment, I would suggest for their consolation a recent incident that came under my observation. A young man was invited to return to his *alma mater* and give an account of his experience since he had left the institution. I heard him begin his speech with these words: "I have been asked to tell you the story of my life since I left here, and, therefore, as I am obeying orders, if anything I say should appear to you to be egotistic, I hope that you will pardon the seeming lack of modesty. My subject ought to appear on the printed program 'Egotism

by Request.'" And so when we come to a great city like St. Louis, we expect people who welcome us to tell us of its greatness.

The claim to cosmopolitanism made by some of the gentlemen who welcomed us was interesting and striking. I am glad that the National Educational Association meets at last in a state that claims to be neither east nor west nor north nor south, but just simply Missouri; and in a city that simply claims to be "it." In this case Missouri reminds me of the preacher who said to his congregation: "All who want to go to heaven stand up;" and nearly everybody arose. Then, after they all had taken their seats, he said: "All who want to go to hell, stand;" and nobody arose except one person, who said: "Parson, I have friends in both places and, I don't want to be discriminating."

It is a privilege to meet in a state and in a city having the great educational facilities that have been referred to in the addresses this morning. The country is familiar with the work of the St. Louis Manual Training School; no one of us is unmindful of the fact that St. Louis gave to the country and to the world Dr. W. T. Harris, our great educational philosopher and Commissioner of Education; many of us think gratefully of St. Louis, too, because of the valuable service in the kindergarten field of Miss Susan E. Blow.

But I must not detain you. I was to respond to these addresses of welcome in a speech of five or ten minutes, and I must not take longer time. To the authorities of this great Exposition we must render our thanks. I would rather the teacher of my children would come to this place and spend a few days than to go to any summer school or other kind of educational institution during this summer. It would have been educational gain, and, in the end, financial gain, to this country, if every teacher in every city of these United States had his expenses paid here by his school board in order that he might have his eyes opened to the greatness of the country. I do not want my children to be taught geography by a person who has never been outside the congressional district in which he lives. I do not want the citizenship of this country reared by people who have never seen a house bigger than a small church or a courthouse. The citizenship of this country ought to be trained by men and women who have seen something of the world and who have some personal knowledge of its progress. The average salary of $300 a year does not permit the teacher to do much traveling or special study.

As I went into the Missouri Building, I saw upon one side the statue of Thomas Jefferson and on the other side that of Napoleon. No one can come to this great World's Fair this week without thinking of these two master-actors in the world's drama. They stand there, one of them the representative of the Kingdom of Force, and the other the representative of the Kingdom of Growth and Democracy. It was a hundred years ago that the great political philosopher purchased from the great military hero this southwestern country as an addition to his great school ground for training democratic citizenship. We cannot forget that when Pestalozzi, the great Swiss teacher, sought the

influence of Napoleon for educational reforms, the latter replied, in effect, that he had no time for such small business. It is encouraging, too, to remember that in less than a century the power of Napoleon had passed away, and that thru the work of the teaching profession and of educational statesmen like Thomas Jefferson the doctrines of Pestalozzi have asserted themselves thruout the civilized world. Thomas Jefferson's first legislative effort was the introduction of a bill to abolish African slavery in the state of Virginia, and his second public act was an effort to abolish general human slavery by establishing a public-school system. Educators should never forget that when he had almost reached the end of his life and his palsied hand would hardly hold the pen, he wrote these words: "My last work shall be as my first was, to establish a system of public schools for the state of Virginia where all children of the rich and poor alike may come together into their common schools and there learn the eternal principles of democracy and the brotherhood of mankind."

ADDRESSES

PRESIDENT'S ADDRESS

THE NEED OF A NEW INDIVIDUALISM

JOHN W. COOK, PRESIDENT OF NORTHERN ILLINOIS STATE NORMAL SCHOOL, DE KALB, ILL.

The American public school is now so generally attended that it has become responsible for much that appears in our social life. I do not mean that it is exclusively responsible, for it is but one of many forces that are determining the character of our citizenship. It should be remembered, in estimating its influence, that it is comparatively new. Fifty years ago it really counted but little in the formation of public opinion or in fixing the direction of our social life. It equipped such of the young as attended its disciplines with what have been called the tools of literary culture, but the real shaping of individual disposition and tendencies was accomplished by other forces than the school. As population has increased, and especially as it has been urbanized to such a degree that substantially everybody except the ranchmen of the West lives in town, life has grown more conventional and a preparatory training more essential. Within the last thirty years a new institution has developed into remarkable proportions, and is increasing in popularity in a most interesting and suggestive way. So liberal is its culture and so general its establishment that it has won the dignified and appropriate name of "the people's college." The opposition that it encountered in the earlier stages of its existence has almost entirely disappeared, and all classes vie with each other in its admiration. In a very large majority of towns it is housed in the most pretentious building. Moreover, it is disposed to accept the name which has been given it, and to assume college airs and college practices. It adopts colors and "yells," holds formal graduating exercises, organizes alumni associations, and endeavors to make itself a permanent force in the community. And it is with the advent and growth of the high school that our educational system has become especially potent in giving character to our social life. In many parts of the country it has entirely supplanted the old private academy, and in other parts it has prevented its establishment. Dealing with youth at the most susceptible age, at the period of developing life when new impulses are awakening and mighty energies are starting into being, it exercises an influence entirely beyond the range of the elementary school. With its advent, therefore, a new and wonderful chapter was opened in educational history. The teacher was given a standpoint from which he can really influence the civilization of his time.

Now that society is becoming conscious of itself, and because the air is full of noisy voices, we are more and more disposed to study social conditions and to seek to improve them. There is much to awaken apprehension. Has our political principle of individualism gone to such an extreme as to confuse itself with its opposite, and to threaten a return to the old and arbitrary authority of the few? It would, indeed, be a biting sarcasm if the very excess of individualism should round into an excess of its opposite. The battle between the employer and the employed is one of the many indications of the sense of power that is coming to the masses of men thru the rapid increase of a certain sort of intelligence. The schools of the people have taught all men to read. The newspaper is the mirror of the times. Capital heralds its achievements. Oratory exalts the dignity of labor. Our national charter of liberty declares that all men are created equal. Our schools have given at least a superficial smartness to large numbers of men who regard themselves as competent to direct great affairs. Is it strange that such a time of ferment is upon us?

It is quite possible that I am a mistaken reader of social indications. I shall be glad to discover that I am. But it is an impression that is forced upon me that we are surrendering the central principle of our fundamental political doctrine in matters of the gravest importance, and intensifying it where it should be robbed of its capricious tendency. I understand that our national history means the greatly increased valuation of the opinions and the social influence of the individuals that constitute what we call the masses of men. It is our boast that every man, however humble he may be, has an opportunity of registering his opinion upon all matters of public concern, and that this opinion is to have genuine weight in determining public policy. The strength and security of our institutions are supposed to lie in the disposition of our people to reflect upon all matters that affect the general welfare, and then to act in harmony with the conclusions thus reached without regard to the opinions of others. The ballot is supposed to furnish an easy and effective method of expressing that judgment and rendering it influential. It has been assumed that conclusions thus reached and thus potentially expressed would furnish the safest guide to the lawmaker and the most wholesome limitations upon the ambitions of the few to acquire undue power in the administration of public affairs. It is one of our favorite theories that the many, acting upon their own reflection and entirely free from compulsion, will in the aggregate manifest a sanity and an insight that the few, however intelligent they may be, will be incapable of equalling. Orators have loved to say, and have pretended to believe, that it is safe to trust the people. Mr. Lincoln expressed the same idea in his oft-quoted remark that "it is possible to fool all of the people some of the time, and some of the people all of the time, but not all of the people all of the time." If there is truth in such a contention, it must lie in the opportunity that our institutions offer to men to inform themselves with regard to the folly or the wisdom of political and social theories, and in the courage and independence with which they will express

their opinions where they will have their proper determining effect. This view of our American life is the one that has been presented to all of us from our childhood up, and it needs only to be expressed to be admired. Surely nothing can be finer to contemplate than a great people, aggregating millions upon millions, and occupying a vast continent of surpassing fertility and with all of the material advantages that the heart could desire, deliberating seriously and intelligently upon great questions of human welfare, and then going forth from the seclusion of their homes, where their meditations have been undisturbed by the noisy clamor of interested partisans, to make that conviction have all the weight which it deserves in the guidance of the administrative policy of a nation. When we talk about our western individualism, it is some such condition as this of which we are thinking.

Now, the impression that is constantly gaining weight in my mind is that the actual conditions among our people are very different from this ideal attitude toward the problems of life. In the field of labor individualism has disappeared with the growth of the union. If I am correctly informed, there is a strong tendency to wipe out the distinction between the excellent workman and the ordinary workman, and to reduce men generally in their productive activities to a standard type. A man is a man, just as a pound of sugar is a pound of sugar. The individual as a laborer becomes a commercial commodity, and might as well be designated by a number as by a name that was given to him at the altar and with all the sacramental dignities of religion. He must reach a certain degree of excellence, undoubtedly, to admit him to the fellowship of the guild, but the tendencies are all toward the obliteration of special qualities rather than of their cultivation.

Again, since the union is an organization for offensive and defensive purposes, there must be an immense centralization of authority. Men do not read history entirely in vain. A campaign that is to be managed by a town-meeting is foredoomed to certain failure. The great battles of the world are always won by submission to the leadership of one dominant and supreme will. Thus it is that in the management of the union there is a further suppression of the individual will. I am not unmindful of the fact that there is a theoretical democracy in these organizations, but I am further instructed that it is only theoretically present. It may be that modern economic conditions demand this surrender of our dearest political principle in order to keep bread in the larder and a roof over the head of the workingman. It seems little short of a tragedy to confess that the idea for which the greatest battles of the world have been fought utterly breaks down when brought into relation with the food-question.

If we turn to the field of politics, a still more interesting spectacle confronts us. It is the more interesting because it is here, if anywhere, that our boasted individualism should be preserved inviolate. Here is the ark of the covenant, the center and inspiration of our peculiar nationality. If you seek for an explanation of the "Mayflower," and "the bleak New England shore,"

and Lexington, and Valley Forge, and Gettysburg, you should find it here. But how pitiful it is that men should only wisely smile at the innocent sentimentalism of him who imagines that the many in their free choice and without the persuasive influence of material considerations settle political questions!

We manage our affairs thru the machinery of political parties. This device elevates the primary election to a position once occupied by the free and final ballot of the town-meeting. Thus a return to the practice of the over-influence of the few is made possible. It is useless to ask in this presence whether this possibility is ordinarily utilized. We make a brave show of retaining our dear political principle, but it is often, alas! a thing of shreds and patches, especially in our cities, where politics has degenerated into a business and is uninfluenced by national questions and issues except in a round-about way.

Must we confess again that this is the only way to do it successfully, and that close organization, the domination of the few, and the blind obedience of the many are essential to the perpetuity of our free institutions, that is, our institutions dedicated to the doctrine of individualism? What a tender plant this precious thing must be, that it can be preserved only by being kept in cold storage!

I wish to assert that I am in no sense a growler. Indeed, I have never risen to the dignity of a mugwump. I usually vote the regular ticket. But if there is not a steady decline in the free and untrammeled expression of individual opinion in the determination of political questions and in the selection of political leaders, I have grossly misread the signs of the times.

What, then, has become of our dear individualism? It is busy elsewhere. It asserts itself once in a while to "turn the rascals out;" but it is in less serious business the greater part of the time. With the growth of the idea of authority in politics there has come the decline of the idea of authority in religion. The desecration of the Puritan Sabbath is about complete. In the minds of a startling number of our people it is reduced to an ordinary holiday, out of which have been filtered the last poor remnants of intrinsic sacredness. They have gone along with the superstitions of our childhood. The open saloon on all of the days of the week has ceased to shock our cosmopolitan sensibilities. The grotesque school strike dresses the old-fashioned master in the fantastic garb of the jester with his cap and bells, and thus proclaims the passing of the old conception of the authority of the school. These are some of the surface indications of the great changes that are taking place in our mental attitudes. Old imperatives are losing or have lost their supremacy. New and less strenuous conceptions are taking their places. No great issues seem to be competing for attention. The political situation is a type of the general social condition. The political party that must first write its platform has the field quite to itself. To the other there remains the poor privilege of denial.

If we turn to the school, we find the same spirit of indetermination. Where is our well-defined ideal that should be inscribed upon our banners and bla-

zoned upon the walls of our schools? No two graduating classes have the same motto. One is reminded of the sad wag who substituted for the familiar "God bless our home" a quotation from the door of a railway car: "It is dangerous to stand on the platform." A motto is a motto. We are pushing for the intellectual disciplines and for the enrichment of the curriculum and all that, and the results are inspiring; but we have as yet no substantial consensus of opinion as to the character of a national type that should present to the world the consummate blossoming of our fundamental political doctrine as a contribution to the ideals toward which civilization should direct its course. We have suddenly awakened to the supreme value of athletics, and the last few years have witnessed its apotheosis. Within its proper limitations, this is full of promise, and is a revival of one of the noblest of the Greek ideals. But I beg of you, gentlemen, you of the universities especially, is it all sincere, this adoration of brawn and courage? At times it all seems like a gaudy poster. Its advertising possibilities are enormous. We are diligently cultivating certain of the brutal instincts whose edge we have been trying to dull by the processes of civilization. Have we been growing effeminate, and are we attempting its correction by a cross-fertilization with the spirit of the Roman amphitheater? We all know the topics that hold the center of the field of thought with the high-school boys and with the university men in the football season. One need not go far to find the explanation of it all. Here is the coveted opportunity for that personal distinction which every aspiring nature seeks, and the road to glory is along those lines of evolution which have crowded into man all of the competing instincts of his savage forebears. In many ways it is a splendid manifestation of individualism, and utterly shames that poor mimicry of political independence, that lazy dilettantism, which lets elections go by default, and that religious independence which leaves the churches to the few who are still in the thralldom of tradition. But most of the institutions are too busy counting the number of students in the annual catalog to spend much time just now in a critical study of the relation of athletics to the national idea.

But I have occupied time enough in this attitude of dissent. We believe that our political experiment is properly motived in its fundamental idea. If we are in error there, then we have misread the seemingly unmistakable essence of human spirit. The hunger and thirst for self-determination are its characteristic qualities. The old evolutionary principle which perfected a body for man and which led him across the upper limit of animalism, having completed its work and declared it good, transferred its methods to the new fields of spiritual development and found this tremendous energy waiting for its guidance. We surrender no particle of our faith in the doctrine of individualism. We still believe that democrarcy is the last word in the true theory of the evolution of a genuine humanity.

But we have confounded two terms. We have missed the distinction between liberty and freedom. One is opportunity; the other is developed

capacity. One we can inherit; the other each must win for himself thru his individual effort. Forty years ago the door of opportunity was opened to an enslaved race. The way in which the black man is attempting to employ his opportunity, and thus to achieve a genuine freedom, will be discussed from this platform by one of their own number who is himself the finest illustration of the truth of the distinction that I am trying to make.

What are some of the leading features that are to characterize this new and sane individualism, the true democracy of the moral will written large in our citizenship?

I believe that its most striking quality will be the return of the despised principle of authority. Government begins with external control. It must come to its perfection in internal control. It required many centuries for the Hebrew nationality to learn that the "thus saith the Lord" of its childhood was only another expression of the law of its own ethical nature. The crying need of our time is the identification of the law of the land with the highest law of our moral natures. The flagrant violations of the statutory provisions that are necessary for the preservation of the most rudimental forms of civilization show how slight a remove we have made from savagery when we are confronted with certain forms of crime. The familiar methods of dodging the spirit of the law of the land while appearing to observe its forms is a startling indication of the loss of that regard for authority that belonged to our earlier history. One of the first lessons that a child should learn is respect for wholesome authority, and that system of education that fails to inculcate it, even tho such inculcation may at times require the infliction of bodily pain, is sowing the seeds of death in the midst of our civilization. We have learned in the marvelous development of the scientific idea how freedom comes to the race by the utilizing of the forces of nature thru obedience to the laws of the universe. With a similar humility and sincerity we must bow before the imperatives of the ethical world and glory in our obedience. Are we not ready to agree unanimously upon one plank of a universal platform: The child must learn the sacredness of law and the manliness of obedience to its high mandates? We need no longer fear the man on horseback with such a motive for obedience.

I have spoken of the decline of the authority of the religious idea in our modern life. Are we to lose its high imperatives? In a very true sense, the school is the child of the church. Is the separation to become complete? In thousands of schools the last vestige of any formal recognition of religion has disappeared. There has been so thoro a secularization that the Bible has become a sealed book to a majority of the children. There must be a retreat from this extreme position. No people can ever afford to neglect the cultivation of the religious sentiment. A shallow and trifling spirit will be the inevitable result. The Religious Education Association was not organized too soon, and practical measures of reform will come from its wise counsels.

A crowning quality of this new individualism will be its recognition of

the dignity of duty. We declare that the core of democracy is service. The good citizen is he who is socially serviceable. The finest individualism is that which embodies the highest qualities of all, not the capricious eccentricities of those who covet distinction by their radical differences from their fellowmen. It will not permit itself to be dominated by brute authority, but it will bend its head in quick assent to the word of rational authority. It will not sacrifice its divine right to the full exercise of its highest powers, and close its eyes to questionable methods in labor unions or anywhere else, on the wretched plea that the end justifies the means. It will eventuate in an American manhood that will be recognized by all men as the fruitage of the long struggle of the race for the privilege of doing the best that it can for itself, unvexed by the hard exactions of tyrannical governments. And it will usher in the time when the finest sentiments of our best moments will become urgent and strenuous guides in the commonplace duties of ordinary living.

THE RELATION OF THE CHURCH TO HIGHER EDUCATION IN THE UNITED STATES

EDMUND J. JAMES, PRESIDENT OF NORTHWESTERN UNIVERSITY, EVANSTON, ILL.

If I were concerned here with a historical question, the answer would be a comparatively simple one; for down to within a recent period the entire field of secondary and higher education, both in England and in America, with very few exceptions, belonged to the church school. The vast majority of our colleges and universities, as well as academies and seminaries, owe their existence, if not directly to the initiative enterprise of some Christian church, at any rate to the benevolence of some individual desirous, first of all, of advancing the interests of the church by this means. Even many of those institutions founded by the state recognize that their object was fundamentally a religious one.

Thus Harvard College, founded by a vote at a meeting of the general court of the Colony of Massachusetts Bay, recognized as its fundamental purpose the education of the English and Indian youth of the country in knowledge and godliness. The government of the colony at that time and the government of the church was one, and the act establishing the overseers of Harvard College in the year 1642 recognized "the good hand of God upon us" in the foundation of that institution. The very seal of Harvard College itself declares that the institution is founded for Christ and the church, and when in 1870 a constitution was framed for the new commonwealth of Massachusetts, it contained the following paragraph:

> Whereas our wise and pious ancestors so early as the year One Thousand Six Hundred and Thirty-six laid the foundation of Harvard College, in which university many persons of great eminence have, by the blessing of God, been initiated in those arts and sciences which qualify them for public employment both in Church and State; and whereas the

encouragement of arts and sciences and all good literature tends to the honor of God, the advantage of the Christian religion, and the great benefit of this and the other United States of America, etc., etc.

The other institutions founded in colonial days were, with very few exceptions, even more distinctly than Harvard College itself, organized to promote, among other purposes, the interests of the church. And after the Revolution and the adoption of the federal constitution nearly every institution of secondary or higher rank founded in our American states during a long period was the outgrowth of church influence, either of church activity directly, or of the benevolence of men who were deeply interested in the church and the mission of the church.

It is certainly not too much to say that down to 1850, at any rate, nine-tenths of all the institutions for secondary and higher education founded in the United States owed their origin to the keen interest of the church in educational matters; and even today, if one takes the lists of colleges and universities as given in the report of the United States Commissioner of Education, it will be found that 360 institutions, or more than three-quarters of the whole number, still recognize that they exist under the auspices of some branch of the Christian church; sixty-four institutions, tho marked undenominational or non-sectarian, owe, many of them at any rate, their existence to the same force from which the others sprang; and only fifty institutions represent the total number of colleges and universities in this list which owe their existence to the activity or initiative of the government of the state in which they are located.

Historically speaking, then, higher education in the United States owes its very existence and its continued prosperity to the activity, initiative, and continuous support of the church.

But, after all, no one in looking over the field of higher education today in the United States, as compared with fifty years ago, can help being struck by the fact that a very great change in the relative position of the church school, as compared with schools under the auspices of the state or of undenominational boards of trustees, has taken place. Where formerly the church school occupied almost a position of monopoly, it has today, by the drift of educational development, been relegated to a far less important position, if not indeed to a merely supplementary or subordinate position. This has come about by two important lines of development—the more active participation of the state in the work of higher education, and the development of secular institutions, owing as little allegiance to the state, however, on the one hand, as to the church on the other. These secular institutions are of two classes—those which were in their origin church institutions, but have gradually thrown off all relation to the church as such; and those which were founded from the beginning distinctly upon a non-church, and in some cases upon an anti-church, basis.

To me the most striking, significant, and portentous fact is the remarkable extent to which the state, as such, has entered the field of secondary and higher education.

In the last thirty years, the free public high school, supported from the proceeds of public taxation by the community, has become the typical institution of secondary education in the greater part of the area of the United States, and it shows a steady tendency to become the typical institution for the vast majority of the population. The old-fashioned academy or seminary, dependent largely for its support upon the church or upon the people interested in the church, has become an element of distinctly minor importance in our scheme of secondary education. Many of these academies or seminaries have declined in attendance and perished. Some of them are prolonging a miserable existence, with no outlook for continued health and activity, so far as one can see, in the immediate future, and the foundation of new institutions of this sort has almost ceased. In other words, the state has entered the field of secondary education to a very striking extent, and forces are at work to bring about an ever-increasing enlargement of this particular field of activity for the state.

There are still vast areas of the United States outside of a high-school district, and even in such a state as Illinois, which may be considered as fairly typical, perhaps not more than one-quarter, and possibly not more than one-fifth, of the area of the state is actually within a high-school district. But the friends of the free public high school—and this includes, I am glad to say, practically every thoughtful and progressive American citizen—are pushing this idea of the state-supported institution in the same aggressive way over the unoccupied territory as they have pushed it in the last generation over the territory actually won. They will not, and I think we should all agree they ought not, to be satisfied until every foot of the territory of the state shall be included within a district of some free public high school, so that every young person in the state will have the right to attend, free of tuition charge, some secondary school supported by the state, just as he now has the right, over nearly the entire surface of the United States, to attend some free elementary school.

The state has entered in the same way, in the same aggressive manner, and with a remarkable degree of activity and success, the field of higher education. Every state in the Union is now supporting some institution of higher education whose facilities are open, free of charge or at a nominal cost, to the young people of that state. It was natural that this movement should in the older states along the Atlantic seaboard be comparatively slow, for when the constitution was adopted institutions had been established in all these states which promised to serve the needs of their population for higher education for some time to come; but when the population began to pour over the Alleghenies into the Mississippi valley, and towns and cities and whole states, so to speak, were created over night, it became evident that extraordinary efforts would be necessary in order to meet the educational demands of these communities. The idea of the state undertaking to assist in offering the facilities of higher education commended itself very early to the people of this region, and thus some of the strongest educational institutions in the Mississippi

valley are state institutions, dating well back toward the end of the first quarter of the last century.

It is probable that in the long run all these states would have adopted a scheme of state universities even if the federal government had not come to the aid of the states by its grant of lands, but this tendency toward state institutions was greatly hastened by the very liberal grants which the government of the United States made from time to time to the support of education within the states; and the Morrill Act of 1863, by which to each state in the Union 30,000 acres of land were granted for each senator and representative accorded to that state in the federal Congress; and two subsequent acts by which a sum of $25,000 a year, increasing gradually to over $40,000 at present, was granted likewise to the states for the support of an institution which, without excluding other subjects, would be especially devoted to mechanics and agriculture, were distinctly intended to be the crown upon this long series of endeavors, and to commit the state finally and forever to the work of higher education. From that act of 1863 we may date the final and irrevocable committment of the federal government of the Union, and of the government of the states of the Union, to the support of higher education. Nearly every state in the Union is now supporting out of the public treasury an institution which is called a university; and those states which, owing to their very liberal equipment with higher institutions, like Massachusetts, New York, and Pennsylvania, did not seem to need a university so much as some of these western states, have accepted this money and these lands quite as quickly as the states of the Mississippi valley, and they are devoting them to the support of a state agricultural school, or a state college, or a department in an existing university, or some other kind of a higher institution of learning.

At the same time with this development, as a result of which the state has entered upon the work of higher education, more vigorously in certain ways than it has ever done in any other country, side by side with this state activity has been developed a large tendency on the part of private individuals to establish and endow higher institutions of learning which would be as independent of the state on the one hand as of the church on the other. These schools have been usually put under the control of self-electing boards of trustees, with the condition, in many cases, that they shall always be administered on undenominational and non-sectarian lines, and should have no more to do with the church as an organization than with the educational authorities of the state, as such.

Some of these foundations have been among the greatest and most beneficent ever made in this or any other country. The Johns Hopkins foundation at Baltimore, the Clark foundation at Worcester, the Leland Stanford foundation in California, and others of less importance, represent this tendency, which has shown itself in such a marked way in the last generation, to build up educational institutions which should owe no allegiance and submit to no control from either the church or the state, except so far as, like other corporations, they are subject to the fundamental or special laws of the land.

When the state in the Mississippi valley came face to face with the question of providing facilities in the field of secondary and higher education, the churches which were doing their utmost to provide facilities in this field proposed that the state should grant funds in aid of the different denominational institutions, and thus, by uniting the efforts of the church and the efforts of the state, should secure the establishment and support of these institutions in the most direct way and at the least possible expense. This plan had many things for it. It would certainly have accomplished valuable results, and would perhaps have led to a more rapid and more satisfactory development of our secondary and higher institutions than has actually occurred.

But, owing to circumstances which we need not go into further here—among other things, owing to a growing fear on the part of the community that any attempt to divide funds among denominational institutions might project upon the nation a series of religious and ecclesiastical contests which could not but be injurious to the best interests of education—the states in the Mississippi valley, almost without exception, decided, first, not to vote public moneys to the support of denominational schools, and, second, to authorize the government in these states to proceed with the establishment of a system of governmental schools from the very lowest grade to the highest.

As a result we find in such a state as Illinois, for example, that the people of that community have established a system of public education reaching, in the more thickly settled portions of the state, from the kindergarten thru the grade school, the high school, the college, and the professional school; and it is possible for a child in the city of Chicago, for example, to enter the kindergarten at the age of three years in his immediate neighborhood, graduate into the grade school of his ward, the high school of his district, the college department at the state university at Champaign, and finally the law school or the medical school of that institution, and be under the supervision and control of state educational authorities from the day he enters the kindergarten at, say, three years of age, until he graduates from the law or the medical school at twenty-three or twenty-four years.

The increasing willingness of the people of the states of the Mississippi valley to grant large sums of money to the support of all these different departments of education indicates a still greater scope, a still wider field, for the higher schools of the state than they have thus far occupied; and I believe, for my part, that this development has been beneficial; I believe that the future development will be beneficial; and it is my own opinion that the policy of the states in the Mississippi valley on this subject of higher education is destined to have a most profound reflex effect upon the educational policy of the older states of the Union. In fact, this influence has already begun to show itself, and in nearly half of the thirteen original states the state university has become the most important institution of higher learning within its bounds.

It is not to be wondered at that, in view of these facts, in view of this

enormous development of state education, and this great development of non-sectarian and undenominational private education, and in view of the lack of development in many departments of education of which the church has had control, many people should have adopted the view that there is no permanent place in our scheme of higher education for the distinctly church college or university. Certainly whatever its place may be in the future, he must be a blind man who cannot see that it must be very different from what it has been in the past. It is no longer true, as it once was, that if the church school did not exist, then no facilities for higher education would be available; for if every church school were swept out of existence in the United States tomorrow, altho the blow to the system of higher education would be a severe one, still it would not be true that the community would be altogether without facilities for such training; nor does it seem likely from anything that we can see that the time will ever come again when the church school will hold the same position of pre-eminence, one may almost say of monopoly, which was once accorded it. The question which we desire to discuss here, then, for a few minutes, is what that place shall be.

First of all, it is perfectly evident that this country will never permit the church as such to control in any vital way, thru its own ecclesiastical organs, the higher education of the community. There is a growing recognition of the fact that, however much modern society may owe to the church in the past for its efforts on behalf of higher education, and however beneficial its activity may be in the future on behalf of the same cause, we shall never permit church authorities, priest or preacher, Catholic or Protestant, Jew or gentile, to dictate to the American people what the form or function of its scheme of higher education shall be. On the other hand, I believe that it is equally true that the American people will not in any time within our possible prevision consent to an absolute monopoly of the field of higher education by the institutions of the state, such as is accorded in nearly every country of continental Europe today. In other words, we are destined to have, in my opinion, as we have now in the field of higher education, three distinct types of institution: the state-supported, state-controlled university, expressing one side of the life and work and aspiration of the community, an absolutely indispensable and ever-increasing element of power and influence in the system of higher education; in the second place, a non-sectarian, undenominational private institution, devoted, if you please, solely to the same work as the state institution, occupying, however, as time goes on, also a position of supplemental and secondary importance to the system of state universities; and, finally, a system of colleges and universities in immediate connection with the church as such—if you please, with the different denominations as such—tho we may hope there will be some diminution in the number of such denominations, and consequently a simplification of the system of education itself. But we shall have a system of schools supported by—controlled by, to a certain extent—and the outgrowth of, the same underlying force which

builds up the church; these institutions expressing another side of our national life equally necessary, equally fundamental, to those represented by the other classes of institutions.

In this complex of higher institutions—of state, secular, and religious institutions—where is the place for the distinctly church school, and what is its function?

My answer to that, on this occasion, within the limits set by this program, must, in the very nature of things, seem dogmatical and to a certain extent unproved; but, such as it is, I offer it to you for your consideration.

My first proposition is that this relation of the church to higher education should be a vital and active and important one. The church as such should still continue to concern itself earnestly and actively in behalf of higher education.

First of all, because neither the state nor non-church private activity will supply the needs of this country for higher education for a long time to come. Its aid is therefore needed, and probably will be needed for an indefinite period, in this important field of our higher life. You will pardon me if, constrained by the necessity of making some concrete application, I use the state of Illinois as an illustration, for I happen to know more of its educational condition than of those of other states. In the state of Illinois, for example, we have a great state university, destined, in my opinion, with all due deference to our sister-institutions in other states, to lead the procession of state universities as distinctly as Illinois will, in the long run, lead its sister-states in the Mississippi valley. The state of Illinois will undoubtedly make great additional grants to this institution. We all hope for that and pray for it; and yet, after the state has done everything that its people can be persuaded to do, there will still remain a large field of higher education unoccupied and unfilled, unless these private institutions and these church institutions occupy it. Besides the state university of Illinois today there are in that state the oldest university in the state, Northwestern University; the wealthiest, the University of Chicago; the youngest, Milliken University; and if we add to them the Armour Institute of Technology as of college and university grade, we should see these four great universities combined represent a far greater income available for purposes of higher education than the state university itself, and they are supplying the needs of a far larger number of students, taken together, than the said university itself. If we were to wipe out these institutions, or for any reason their vigor or vitality should diminish, it would not necessarily mean that the state university would grow correspondingly to occupy this field, but rather that the facilities for higher education in the state of Illinois would by that much be seriously diminished. If we were to close all the schools supported by the church, we should deal an almost irremediable blow to the system of higher education. Consequently, in the interests of the community itself pure and simple, with no reference to the church at all, it would be a serious injury to the interests of higher education

if the church should no longer take that active and keen interest in it which has been characteristic of the church from the beginning.

The church should continue this attitude of interest and support to higher institutions because, even if the state were willing and able financially to undertake this function entirely, to occupy the whole field in a satisfactory way, it still does not lie in the interests of the community that the important interests of higher education should be entirely in the hands of the state. Even if we approve, as I do, of a state-supported system of education from the kindergarten thru the professional school; even if we believe, as I do, that the state should support such a chain of institutions by public taxation for the benefit of the community, it is still true that the exclusive domination of higher education by the state is not in the interests of a free people. We see today in all countries of continental Europe an illustration of the exclusive possession of the field of higher education by the state, which means, of course, by the state government; and Germany affords a most striking example of a great and powerful nation which has accepted the principle of state control of university education to the exclusion of church or private co-operation.

It has always seemed to me that certain definite disadvantages have resulted to the German people from this scheme. Only those types of intellect and sentiment and temperament can flourish in a German university which are approved by the government organization and by the public opinion of the nation as a whole. And we have received into our country many a score and many a hundred of Germans who have been of great value to our intellectual and moral life, who were forced to leave Germany because they could not live in the atmosphere of an exclusively state university system. And while we might not suffer from just that sort of thing, yet if the state university ever comes to occupy relatively such a position in the United States as it has in Germany today, we should suffer from other evils of a similar and no less serious sort. To limit the access to the learned professions and to the higher civil service to the graduates of a state university would be to strike a blow at some of the most important and beneficent influences at work in our modern life. The intolerance of a democracy to things which it does not like is even greater and more crushing than the intolerance of a monarchy. It lies in the interest of a community as a whole that, side by side with this system of state-supported schools, expressing one side of the life and thought of a people as no other kind of a school can do it, there should also be a system out of all relation to the educational system of the state, responsible only to the general laws which the community may find it necessary to enact. In this country we may be sure that many a good talent is saved to advance the welfare of a community or nation which might be snuffed out or stifled to death in the atmosphere of an exclusively state system.

The combination then, from this point of view, of private and state schools for higher education is more desirable by far than an exclusive monopoly of either. This, I believe, to be the American system.

I have said that the function of a system of church schools was, first of all, exactly similar to that of state schools; namely, to do its share in supplying the need of the community for higher education, and which cannot be supplied at present by the state alone.

But there is another reason why the church should be interested in the establishment, the maintenance, the development, and the proper equipment of a university, and why the community as a whole should be interested in the church's undertaking this. The church school may develop certain aspects of scientific investigation and thought which—with our ideas at present, at any rate, and for aught that we can see for an indefinite time to come—the state cannot properly cultivate.

Take the whole field of theology, using that term in the large sense. The science of God, the science of the relation of man to God, I think most Americans, whether they are members of a church or not, would agree that this is a department of human thought and human inquiry which ought to be maintained, and ought to be provided for as fully and as adequately as any other branch of human science or human thought. Now, it is perfectly apparent that the state university, under existing conditions in the United States, with our ideas upon the relation of such study to religion and our notions of an absolute separation between church and state, cannot properly teach this subject, and indeed ought not to teach it at all. Take the extreme case, that of theology in the narrow sense, the sense in which theological schools are organized to develop and apply it: we all agree that the state university cannot establish a theological department; and that simple fact, combined with the further fact that we believe the study of theology to be important, makes it necessary that we should have a system of church schools in which this subject may be properly pursued.

The same thing may be said in a large way of the study of the Bible. There may be a study of the Bible, of course, having reference simply to its externalities, which may be carried on by anybody in any kind of an institution; may be carried on by the friends of the Bible or by the enemies of the Bible; but even this objective study of the Scriptures, be it sympathetic or antagonistic, is barred from the state university by our ideas on the subject. And so the whole study of the Bible, with everything which concerns it in a large way, is practically excluded from the system of state-supported schools. In fact, we are going so far that some of our courts are holding that the Bible is a sectarian book which cannot be read or studied or commented upon, or even mentioned, in our system of schools from the lowest to the highest. Bible study, then, in a large sense includes all those subsidiary sciences which go to make it effective in modern times, such as Egyptology and Assyriology, etc., and is practically excluded from the domain of state-supported education. And surely here is a very important function for the church schools. We may add also that those of us who believe in the Bible as a holy book, as representing in a peculiar sense the will of God, do not like the idea of an unsympa-

thetic and irreverent study of these Scriptures, and believe that it is to be advanced most efficiently if carried on under circumstances where affection and reverence can have their proper weight in determining the attitude of investigator and student toward the books.

There are other departments which cannot be adequately represented and adequately taught in any system of state-supported schools. One is ethics, and another is history. No one who believes that ethics finds its basis in religion can for a moment be content with a teaching of ethics which ignores and excludes religious considerations; and yet this must be the character of ethics taught in a system of state-supported schools.

History, so far as it has to do with church history—and that is for a large part the history of Europe since the fall of the Roman empire—can hardly be taught in a thoroly satisfactory way in a state school. There is, of course, a purely objective way of dealing with historical facts which might possibly meet the approval of all parties except in those cases where the facts themselves are disputed; but to the extent that they pass over into the domain of interpretation, religion, and philosophy are as much entitled to speak as any other element of human thought. And there is scarcely a page of history of the Middle Ages which is not so wrapped up with church history as to make it almost impossible to teach the subject in a satisfactory way in a state school. Our Catholic friends are especially severe on this particular point. They claim that all non-Catholic teaching of history is anti-Catholic. While, of course, we cannot grant any such proposition as that, we may admit that history may be made to mean a very different thing as its facts are presented in one setting of another, from one point of view or its opposite.

In the same way the subject of politics, using that term in the large sense, cannot be adequately and satisfactorily dealt with in the state schools, because politics—present-day politics, at any rate—is a side issue more or less to some political tendency or some political party, and requires positive political affiliation; but such an attitude will not be suffered to exist in a state institution, as it would be distasteful to the supporters of the school. The instructors in such a school, according to the public mind, may not justly represent the view of one part of the community and antagonize the views of the other.

Of course, I am fully aware that the church, in all these departments, lies, considering its history, considering its organization, justly under the imputation of teaching history, philosophy, and theology from its own narrow point of view. It lies under the suspicion of taking questions as already settled which ought to be investigated, and as excluding certain subjects from consideration because it is a part of the dogma of the church that they have been settled. These are undoubtedly the weaknesses of the church school, and one of the real reasons why we need other institutions, to correct their mistakes and supplement their defects.

There is another reason for the existence of a system of church schools in the United States, whatever may be true of other countries, and that is the fact

that in a democracy like our own, where all public institutions are under the control of public sentiment, the tendency toward the narrowly and short-sightedly practical is likely to dominate, or at any rate to attain an undue influence, in any system of state-supported institutions. The state university, if it fails to keep in close touch with its constituents, is likely to have to go out of business. If it keeps in touch with its constituents, it is likely to have to sacrifice its ideals in very many points to the demands of the community. No one would suspect me of desiring to say anything against the study of agriculture, or engineering, or commerce, or law, or even cooking and sewing; a large part of my active life has been devoted to securing for these subjects their proper place in a university curriculum; but, important as these subjects are, they are not more important than the cultural element which ought to enter into all education, particularly secondary and higher.

I do not believe that it is necessary for any man to study Greek and Latin to be a cultured and educated gentleman, to be a successful lawyer, or merchant, or railway president, or banker. I do not believe that it is necessary, or even desirable, that every child in the community should study Latin and Greek, or even Latin or Greek; but I should consider it a very great misfortune for the American people if nobody studied Latin or Greek; if we did not keep in touch with the magnificent history of the peoples which speak these tongues; if we have no one laboring to interpret anew for our time and our generation the lessons which the life of these peoples sends down to us across the ages. Now, I believe that the facts will bear out the proposition that our system of state-supported schools, as a whole, if it does not emphasize too much the practical, at any rate tends to underestimate too much the cultural, and thus fails to serve the community in its highest interests in an efficient way. Here is another case of the natural and proper division of labor, if you please. We must look for the cultivation and protection of this interest to institutions which do not rely upon the state treasury primarily for their support. I believe the classics—that is, the ancient classics, Latin and Greek, and Latin and Greek history, and everything connected with it—would decline very rapidly and disappear from the scheme of study in the United States today, if their sole resource was a system of state-supported schools; and we should all regret such a disappearance as a great loss to the higher interests of American society.

There are other departments of higher scholarship which the state-supported university finds it difficult to cultivate and support as they deserve. What legislature, for example, would appropriate $150,000 to dig a hole in the plains of Babylon to find out whether there is any real evidence that Abraham lived in Ur of the Chaldees and went out from there to Palestine? In other words, what legislature would appropriate such a sum of money to help penetrate the mysteries of our ancient civilization which are located in the dust hills of Babylon, or on the great monuments of Egypt, or in the ruins of Greece or Rome? And yet no one who values the higher things of life can deny that this sort of study is not only one of the most interesting, but one of the most valuable and

inspiring, lines of investigation in which the modern man is engaged today. Fully half a million dollars have been spent by Americans in these undertakings, and the expenditure has been a credit to American benevolence and to American scholarship. This and similar departments represent a field of our higher education and higher learning which we can hardly expect the state, as it is organized in this country today, to cultivate adequately.

But the church should concern itself about higher education for another reason. It can organize and support a type of institution which many parents in our system would patronize when they would send their children to none other. We cannot loss sight of the fact that the American people is essentially a religious people; that a large part of its members are associated definitely with some form of the Christian church; that they believe in an education which as one of its results will leave the student interested in religion, religious questions, and religious work; and that there are thousands and tens of thousands of parents in this country who would rather their children would never obtain a higher education than to get it in an atmosphere which is antagonistic to, or simply neutral and indifferent to, the claims of religion. In other words, many of our people believe, whether mistakenly or not, that the religious nature of man stands in as much need of cultivation and care as the intellectual or the physical, and that no institution which is prevented by its very nature from looking after this side of the life of the young man or young woman ought to consider itself as offering a complete and well-rounded education. There are all sorts of views upon these questions, many of them of course extreme and untenable, and yet we certainly cannot deny that the attitude toward religion, religious problems, and religious life of young people in the mass will be developed to a considerable extent for their entire lives by the influences and atmosphere and attitude with which they are brought into contact during those critical years of college and university life. I would not lose sight of the fact, of course, that after all the formal cultivation of religion is easily overdone; mistakes are easily made which may result in more harm than good; and the evil results of neglect in this particular department are, to my mind, often exaggerated, as well as the evils of an attempt to overcultivate this part of the students' life are minimized and disregarded. Nor do I sympathize at all with that view so often expressed that state schools, because they do not give positive religious instruction, are godless. The teachers and students in these schools are, as a class, as religious as those in other schools. And as long as the American people remain a Godfearing, religious people, so will be their schools, whether public or private. But, after all, we must concede, I think, the truth of the general proposition that if the religious instincts and the religious ideas and ideals of young men and women are not cultivated, we must expect to see the religious nature atrophied, exactly as would be the intellectual or physical under similar conditions. Now, the church is able to establish an institution in which an atmosphere can be created which will satisfy a large part of our population who look with suspicion and fear upon an absolutely secular higher education.

I do not see, for my part, how anyone can deny that it is well to satisfy this demand by the existence of such schools, unless indeed he deny the claims of religion and religious education and religious culture *in toto*.

Looking at the question still from the standpoint of the interest of the community as a whole in securing the best scheme of higher education, I believe that the church as such should be interested, positively and directly and vitally, in the organization and maintenance of the institution of higher learning, because of the reflex effect of this upon the educational ideas and educational standards of the denomination which engages in this project. Supporting higher education with all the incidental and reflex circumstances set at work as a result of that function, takes in, in the most efficient means possible, the rank and file of the membership of the church, with the result to higher education that it elevates the educational standards and ideals of the entire community. In other words, the great function of the church school in the field of higher education is to educate the church itself and its membership as to the necessity and desirability of higher education. Take any one of our great religious denominations—the Methodist church, for example. It includes within its membership, counting the members of families and communicants in all the various branches of this much-divided denomination, upwards of thirty millions of people in this and other countries. Consider what a power for higher education such a church may be and is, if it develops and works out a system of efficient and high-class church schools. The Methodist church was the result of a protest against certain tendencies in English life. It is probable that the movement would have resulted in its adherents leaving the English church, even if they had not been pushed out by the ignorance and intolerance of the clergy at that time. It was too large a movement to remain within the limits of any establishment, and as it went out to its work of evangelism, its first message of course was to the ignorant, poor, and neglected classes; and it has been the glory of the church ever since that that has been recognized by the church to be the chief part of its function.

But the movement was cradled in Oxford, one of the great centers of culture, refinement, and scholarship in the Europe of that day. It was led by men who were recognized as among the leaders in the college and university life of their time. So cradled and so led, it could not help being an educational movement also, as well as a spiritual movement. Its doctrine that the Bible should go into the hands of every individual—the old Protestant doctrine—and that every individual should study the Holy Scriptures, made it, of course, from the beginning an essentially educational movement; for no one could study the Scriptures thoroly without receiving a liberal education in more senses than one. But how distinctly it is also an educational movement in the narrow sense is apparent from the eagerness with which the church began to found and develop educational institutions of secondary and higher grade. In this country, the pioneer Methodist preacher, as he traveled over these pathless prairies and forded these bridgeless streams, carried with him every-

where, not only a Bible, but other good books illustrative of Bible doctrine or Bible inspiration, or bearing on the higher life of the community. The movement looking toward an educated clergy, combined with the idea that an educated laity was also necessary, gained an ever wider and wider influence and a stronger power. And when finally the church began to found institutions of higher and secondary learning, a new standard was set up and a new idea entered into the minds of the people, and the great mass of these uneducated adherents of the church became interested in higher institutions of learning, interested in the education of their children because they were interested in the church; and the church preached the necessity of education and showed her belief in it by the efforts and sacrifices she put forth to establish these higher institutions.

The University of Chicago has, in my opinion, done no more useful service for higher education in this country than the remarkable indirect influence which it has exercised upon Baptist educational standards thruout the country. The ideals and standards and tests which the University of Chicago set up could not be without their influence upon the same standards and tests of every other Baptist institution; and it is not too much to say that every Baptist clergyman in the United States—nay, every Baptist layman—has experienced a distinct advance in his educational ideas and educational ideals from the stand which this institution took and from the place it has occupied in the public mind from its opening.

And what was true of the Methodist church and the Baptist church is also true of the Presbyterian and Lutheran and Catholic. In proportion as the church takes up education the individual member becomes ever more deeply interested. And this function of training its own membership to a higher view of education is, to my mind, one of the most valuable functions of the church school. It is a service which every thoughtful citizen must recognize to be of the very highest value to the community as a whole.

So far from the standpoint of the community. Looked at in the narrow way from the standpoint of the church, the need of the church to establish higher institutions of learning is quite as plain.

If we believe in the fundamental importance of religion and religious training, in the national scheme of education, we should be interested as citizens in everything which will make the church itself more efficient for this purpose. Now, whatever else the church college and church university may do, one function certainly seems to be most natural, and one may say almost inevitable. If the church really desires to provide for the active encouragement and development of its own personnel for the doing of its own work, it must look for this very largely to specific church institutions. A very large part of the active trained ability for the work of any church comes, and must come, from the students in the church schools. I think everyone would agree that if the Presbyterian or Congregational or Methodist churches expect to find a continuous and adequate supply of ministers for their pulpits, they must look

for these to come forth from the centers of learning which they themselves establish and maintain. There is universal regret in nearly all our Christian churches on account of the small number of young men who present themselves for the Christian ministry. I believe this is, in large part, to be explained by the fact that some of the very greatest centers of church training, of religious culture, have ceased to be church schools in any proper sense of that term—have ceased to be centers of religious interest and religious work; and so the number of men has declined who have looked forward to that as a calling in which they might most properly serve their day and generation.

I have time for only one other point, and cannot develop that at very great length. As citizens we are all interested in the development of a very high type of religious and church organization and authority; we are interested in freeing religion from its superstitions, in raising it into that higher atmosphere in which these injurious growths will themselves wither and disappear. Now, the church itself, in its ecclesiastical organization, in its discipline and its polity, in its outlook upon the world, is rationalized and refined by a close connection with a system of higher education. Not only are its specific servants, its clerical and lay ministers, better educated and better trained for their work, but the whole mass of the denomination is refined and improved by that intimate contact with higher education which is an outgrowth of the necessity of establishing and maintaining and carrying on this work of higher education. We must not lose sight of the fact that within the church itself the church school must insist, for its own sake and for the sake of the work that it is doing, upon that independence of ecclesiastical control which may easily mean death to all real educational investigation or outlook. I do not believe that any institution of higher learning can be safely intrusted to the control of any of the ecclesiastical organizations of any Christian church, not even the most liberal and intelligent. And just as the state in this country has rejected once for all the notion that the church, whether Catholic or Protestant, whether Jew or gentile, shall dictate the policy, the ideals and aspirations, the methods of a system of higher education, so every educational institution within the church itself, if it is to do its work in such a way as to be of benefit to the church and to the country, must insist upon that proper and fair degree of independence which is necessary to any vital educational effort.

To sum up the ideas underlying this paper in one brief paragraph: The place of the church school in higher education in this country, altho it may be and in my opinion will be from now on, in a certain sense strictly subordinate, and at any rate strictly supplementary, is still a vital and important place; important not only to the church as such, but important to the community as a whole, and to the highest educational interests of the community.

The secular school, whether private or state, and the church school, are necessary elements in that system of higher education which is to work out the best results for the American people. They must go hand in hand—the weaknesses and shortcomings and defects of the one, supplemented by the elements

of strength and power in the other, so that the system, taken as a whole, shall serve the purposes and needs of this great, God-fearing, intelligent American people.

POPULAR EDUCATION IN ENGLAND

CAPTAIN PERCY ATKIN, BRITISH EDUCATION REPRESENTATIVE, LOUISIANA PURCHASE EXPOSITION

In England we have one Board of Education dealing with education thruout the whole country. The administrative work of the board is divided into three main branches—one chiefly concerned with elementary education, the second with secondary education, and the third with technology and higher education in science and art. The elementary branch deals with the provision, administration, and inspection of elementary education, and with the training and examination of teachers and pupil-teachers in elementary schools. The secondary branch deals with matters relating to the administration and inspection of secondary schools and of educational endowments. The technological branch deals with the administration and inspection of technical institutions and evening classes thruout the country which receive aid from the board, and with matters relating to the Victoria and Albert Museum, the Royal Colleges of Science and of Art, the Geological Survey, and certain other work under the board. It should be clearly understood that, except in the cases of the Royal Colleges of Science and of Art, the board itself neither provides nor administers any educational institution, the function of the central authority being restricted to the award of central treasury grants and to the maintenance of a general standard of efficiency. Under the recent education acts the local administration of education of all grades is intrusted to one and the same body, viz., a committee appointed by a locally elected body.

Such elected body has to submit a scheme for the constitution of its education committee for the approval of the Board of Education. Every such scheme must provide for the appointment of persons of experience in education and of persons acquainted with the needs of the various kinds of schools in the area of the local authority, and for the inclusion of women; and the Board of Education has in every case insisted upon the strict observance of these specific requirements of the act, while leaving to the discretion of the different localities the precise manner in which these objects were to be attained.

The duties of these local authorities include all those which formerly devolved upon the school board and school attendance committees, together with the control of all secular education in all elementary schools, whether voluntary schools or council schools, and the obligation to consider the educational needs of the area, and to take such steps as seem desirable to supply, or aid the supply of, education other than elementary.

The total number of local education authorities required by the act to form education committees is 334.

It should be here stated that "voluntary schools" is the name given to those schools built by private subscribers, with or without the government aid; the managers were voluntary, and not necessarily representative of the locality; the subscriptions might cease at any time and the school be closed. On the other hand, "council schools" are those built by the popularly elected local body, paid for out of the local taxes, permanently dedicated to secular education, managed by the local education committee, open to all comers so long as there is room, and giving no denominational religious instruction.

So much for our organization of administrative management.

And now to turn to elementary education. The first tangible recognition by the state of its duty toward education was given in 1833. These grants were continued from year to year, but were considered only as a temporary expedient until a more permanent system could be established. They were at first devoted solely toward assisting in the erection of school buildings, and were distributed thru the agency of the two great school societies—the National Society, and the British and Foreign School Society. After some years, in order to secure more efficient teaching, grants were made for maintenance as well as buildings. The increase in the amount of state grants was rapid, but it was accompanied by much misgiving as to the real extent and value of the provision thus secured. Tho the report of the royal commission appointed in 1859 was optimistic, the feeling of uneasiness continued, and deepened into a conviction of the insufficiency of voluntary effort, which led to the adoption of the first great Elementary Education Act in 1870. It was the object of this act to establish a national system of education, which should be open to every child, whatever the religious belief of his parents; and it was accordingly laid down that no school should be entitled to a share in the parliamentary grant unless it were so conducted that a child might be withdrawn by the parent from any religious observance or instruction without forfeiting any of the other benefits of the school. Voluntary schools, provided that they satisfied the provisions on that head, might continue to give such religious instruction as the managers chose. But in the new class of schools established by the act no religious catechism or religious formulary distinctive of any particular denomination was to be taught. These latter schools were to be provided and maintained by popularly elected bodies called school boards, and were supported partly out of the central grants and partly out of local taxes. The voluntary schools were entitled to receive state aid on the same terms as the board schools, but they were debarred from receiving any financial assistance from the local taxes. This provision has been repealed by the Education Act of 1902, which makes the local education authority responsible for the secular instruction in all public elementary schools. The second main modification of the act of 1870 has been the abolition of specially elected authorities for educational purposes. Education has now become one of the ordinary municipal services.

In 1876 attendance was first made compulsory, and subsequent acts have

introduced more stringent regulations. As a general rule, it is now obligatory for children to attend school from the age of five to the age of twelve. They are further bound to attend school between the ages of twelve and fourteen, unless they become qualified for either total or partial exemption by passing a prescribed examination, or by having attended school previously with a certain amount of regularity. As a matter of fact, in the cities fourteen is the more usual age for total exemption. This year it is proposed to give a higher rate of grant on account of all children over twelve who attend school.

In 1891 an act was passed which gave to every parent the right of obtaining free education for his children between the ages of three and fifteen, and the Board of Education is required to see that free places are provided where needed, since certain schools still retain the right to charge fees.

By means of its codes, annually approved by Parliament, the Board of Education has determined the conditions on which its grants should be awarded to elementary schools. These grants are paid on average attendance at the following rates: 15*s*. between three and five years of age, 20*s*. between five and twelve, and 25*s*. between twelve and fifteen, with extra grants for special instructions in cookery, handicraft, and other subjects. To some extent these conditions have regulated the subjects taught; but the central authority, while laying down general lines, does not prescribe any detailed course of study.

The education given is based on a graduated course of instruction suitable to the age and capacity of the scholars in the following subjects: English, arithmetic, knowledge of the common phenomena of the external world, geography, history, drawing, singing, physical exercises, and, for girls, plain needlework. Additional subjects are, for boys, handicraft, gardening, and cookery (for seaport towns); and, for girls, cookery, laundry work, dairy work, and household management. Further, one or two more subjects may be taught to older scholars, if the inspector of schools is satisfied that the subject is suitable to their age, circumstances, and capacities; that it does not interfere with the general course; that it can be efficiently taught; and that a proper scheme is framed and approved.

Our next branch deals with secondary schools. In spite of many warnings as to the necessity for the organization of secondary education, up to the present day the relations of public authorities, both central and local, with secondary schools have been much less close than those with elementary education. The secondary schools may be divided into four classes: (1) the public schools (*i. e.*, the seven principal schools—viz., Eton, Winchester, Westminster, Charterhouse, Harrow, Rugby, Shrewsbury—dealt with by the Public Schools Act of 1868 and certain others, such as Haileybury, Marlborough, Uppingham, popularly associated with them); (2) the endowed schools (i. e., the endowed secondary grammar schools administered under the Endowed Schools of Act 1869); (3) schools established and controlled by local authorities; (4) schools carried on by private enterprise. It is hardly possible to give an exact definition of a public school, but the term includes all the most impor-

tant older foundations which maintain very close relations with the ancient Universities of Oxford and Cambridge. They are mainly, tho not exclusively, boarding schools, and thus are differentiated from the endowed schools, which, tho admitting boarders, have a strong local connection. Educationally the endowed schools were under the control of the charity commissioners, whose powers in this respect have now been transferred to the Board of Education. These powers include that of making schemes for the general conduct of such schools, and for organizing administrative inspection to see that these schemes were properly executed; but they did not include any authority to grant financial assistance. This defect was to some extent remedied by the action of the former Science and Art Department (now the Technological Branch of the Board of Education), whose grants could be earned by schools complying with their regulations. Both from this source and from the funds administered by the county council under the Technical Instruction Acts, considerable financial aid has been given in recent years to secondary schools. In many places there probably still exists a considerable deficiency in this grade of education, but the duty of providing a fitting remedy is laid by the act of 1902 upon the new authorities. It may be noted that the greater part of the provision of girls' secondary education is still made by private enterprise.

Hitherto no special qualifications have been demanded of secondary teachers. High academic qualifications unaccompanied by any professional preparation have sufficed to open the best posts in the teaching profession to men leaving the old universities. But with the establishment of the Register of Teachers under the act of 1899 this state of things will cease. After the present transitory arrangements have been withdrawn, no teacher will be able to be placed on that register without affording proof of distinct preparation for the practice of his profession.

In the matter of secondary education Wales has received a different, and, as some maintain, a preferential, treatment. It was unusually poor in endowed schools, and the opportunities for secondary education were few. Thru the disinterested zeal of one or two individuals, a bill was introduced into Parliament in 1889, and carried with the support of the government. By this act, the treasury undertook to pay to each county and county borough a subsidy not exceeding in amount the sum raised by local rates for the purposes of intermediate education. Thru the operation of this act, within a very few years the principality has been provided with an excellent system of secondary schools. For the maintenance of an equal standard of attainment thruout the country, a system of inspection and examination has been established, and placed under the control of a central board, to which each county and county borough sends delegates. This organization has been allowed to retain its full powers under the act of 1902.

As was indicated earlier, the third branch of the Board of Education takes charge of technological education. Technological education may be said to begin with the nineteenth century. In 1800 Dr. Birkbeck started courses for

workingmen in Glasgow. He continued this work when he removed to London, and thru this influence institutions which aimed at providing instruction for workingmen were established in many of the principal towns of England. But the movement failed to retain its hold upon the interest of workingmen. Many a mechanics' institute degenerated into a kind of social club for small tradespeople rather than for workingmen. The great exhibition of 1851 once more called attention to the need for such instruction of the working classes, and one of the results was the creation of the Department of Science and Art, which has always devoted a considerable portion of its funds to the diffusion of scientific knowledge by means of evening classes. But the local resources available were so insufficient that much of the work this department was intended to undertake remained undone, and there arose a further cry for increased opportunities for technical instruction. To meet this demand the Technical Instruction Act was passed in 1889, and the execution of this act was entrusted to the local bodies which had been created in the previous year by Parliament. The new authorities were greatly assisted in their educational work by the assignment to them of a large sum of money derived from the customs and excise duties, the greater part of which was used by the majority of the councils for the furtherance of the objects of the Technical Instruction Act. The act of 1889 and subsequent acts were repealed by the acts of 1902 and 1903, but the work which was inaugurated under them can be carried on without any hindrance under the provision of the latter measures.

In connection with our national system, reference must be made to the universities. But it must be remembered that English universities are not subject to the jurisdiction of any department of state. The constitutions of the ancient foundations of Oxford and Cambridge have from time to time been modified by parliamentary action, but within the limits of their statutes, framed in accordance with his legislation, they and their constituent colleges are self-governing bodies. Except in the case of a few professorships at either university of royal foundation, to which nominations are made by the chief minister of the crown, the selection of its teachers and officers is left to the university.

The most noteworthy fact in the recent history of English university development is the gradual abandonment of two old ideals, namely, that of the federal university and of the university which examines, but does not teach. The University of London, till 1900 a foundation of the latter type, is now steadily developing its internal or teaching organization, and as a first step in that direction is bringing, with great energy and very considerable success, the various agencies for teaching which already exist in the metropolitan area, into harmonious co-operation.

The University Colleges at Manchester, Liverpool, and Leeds which constituted the former Victoria University have parted company, and become each of them an independent university. Owing no doubt to a greater degree of homogeneity in the local conditions of the principality, the federal principal still obtains in Wales, and the University Colleges of Alberystwyth, Bangor, and Cardiff are the constituent colleges of the University of Wales.

The following are the universities at present existing in England and Wales, together with the dates of their foundation: Oxford (ninth century), Cambridge (thirteenth century), Durham (1831), London (1836 and 1900), Birmingham (1900), Victoria University of Manchester (1903), Liverpool (1903), Leeds (1904), Wales (1893). With the exception of the first three named, all these institutions are in receipt of treasury grants. Under treasury minutes, eight university colleges also share in these grants, which it is hoped the government will considerably augment in the near future.

I have thus covered the general field of our educational activity in England, and in the remaining time allotted to me I will restrict any further remarks to the subject of elementary education.

The great distinction between the American and the English systems of elementary education is that the bulk of the money expended on education in England is derived from a central government grant supplemented by local taxes. The central government, in providing this money, exercises, by means of its inspectors, a preponderating influence on all the work done in the schools. It approves the types of school buildings, the curriculum to be followed, and the teachers to be employed. But the central authority, while securing some general standard of achievement, does not aim at destroying individuality or at limiting the discretion of local authorities and teachers in proposing courses of study which they may deem better suited to their special circumstances. The dominant idea is a unity of method without uniformity of detail.

With this purpose in view, it is the aim of our educational system, under the present enlightened, reconstituted Board of Education, to train the children carefully in habits of observation and clear reasoning, so that they may gain an intelligent acquaintance with some of the facts and laws of nature; to arouse in them a living interest in the ideals and achievements of mankind, and to bring them to some familiarity with the literature and history of their own country; to give them some power over language as an instrument of thought and expression, and, while making them conscious of the limitations of their knowledge, to develop in them such a taste for good reading and thoughtful study as will enable them to increase that knowledge in after-years by their own efforts.

The school shall at the same time encourage to the utmost the children's natural activities of hand and eye by suitable forms of practical work and manual instruction; and afford them every opportunity for the healthy development of their bodies, not only by training them in appropriate physical exercises and encouraging them in organized games, but also by instructing them in the working of some of the simpler laws of health.

In all these endeavors the school must enlist, as far as possible, the interest and co-operation of the parents and the home in an united effort to enable the children, not merely to reach their full development as individuals, but also to become upright and useful members of the community in which they live, and worthy sons and daughters of the country to which I have the honor to belong.

EDUCATIONAL POSSIBILITIES FOR THE COUNTRY CHILD IN THE UNITED STATES

O. J. KERN, SUPERINTENDENT OF SCHOOLS, WINNEBAGO COUNTY, ROCKFORD, ILL.

The message I bring you this morning comes from the farm with its fields of waving grain. I bring you, I trust, the spirit of a new age for country life, the promise of a richer and a more complete life. Let there be words of encouragement for the earnest country school-teacher who, in spite of conditions, ofttimes not appreciated, and usually underpaid, is doing a heroic service. She gives her life that her pupils might have life and that they might have it more abundantly. There are great educational possibilities, practical possibilities, for the country child.

In the first place, the country school of its kind should be just as good as the best city school for the most favored city child. It should not be the same kind of school with the same course of instruction. There is a difference of environment which must be considered. The school training should relate more to daily life.

TIME TO IMPROVE THE COUNTRY SCHOOL

Let us give the country school all the credit possible for its work of the past. It has done a great work, and will do a yet greater work. But there is room for vast improvement; and to claim that there is no use to improve any institution is to acknowledge that it has in a great measure outlived its usefulness.

The serious attention required by the new conditions of life is now being bestowed upon the improvement of the country schools. There is a greater public interest in this part of the educational field, much of which has been too long neglected. The telephone, free delivery of mail, and the trolley line must touch the educational as well as the financial and social interests of the farmer.

A NEW AGE FOR THE FARM

A study of the exhibits in the agricultural, horticultural, and various buildings of the Louisiana Purchase Exposition must convince one that this is a new age for the farm. It is estimated that over $9,000,000 was expended last year at the different agricultural colleges and experiment stations of the United States in the interest of higher education for the farmer. Why continue to neglect the possibilities for elementary instruction to the children in the district school regarding things of vital interest to the farmer of the future? No progressive farmer is satisfied with the machinery of twenty-five years ago.

The last one hundred years witnessed the settling of the Louisiana Territory. Now has opened the period of settling down in that territory. This is true of the United States at large. The significance of this change is well set forth in a recent editorial in the *World's Work*. The writer says:

In a sense we have settled the country; and now we are beginning to settle down. We are reaching a period of an equilibrium of opportunity.

This large fact explains many changes in the direction of our activities, and a corresponding change that is taking place in our national character; for what we do makes us what we are. It is a key to the larger tendencies in present American life.

The difference between a period of settling and a period of settling down is the difference between adventure and development. It is expressing itself in a hundred ways—in intensive instead of extensive farming; in the concentration of industry instead of duplicating it; in building better homes instead of seeking other homes; in doing the jobs we have in hand better rather than in seeking other jobs. All this means greater efficiency. It means sticking closer to business. It has much to do with the production of great wealth which makes the last decade a period in our history which stands out by itself. It has much to do with the great movement to consolidate industry. It brings us back to all kinds of home problems—to the proper building and government of our cities, and to the almost universal tendency to improve country life.

NEWER IDEALS FOR THE COUNTRY SCHOOL

In this improvement of country life there is no agent so potent in possibilities as the country school. The school, especially the country school, should not only be a preparation for life, but it should be life. For the country school there should be created a new educational ideal. The most difficult of all educational problems is to reach the average farmer and genuinely to enlist his *active* co-operation for the improvement of school facilities for his children. He must be met on his own ground, and the reasons must appeal to him from his own point of view as well. No one that I know of has yet solved this problem. The great farmers' institute movement with the agricultural college and experiment station from above is leading to heights unknown heretofore. It remains for someone to tell us how to organize the forces possible in the country children, and thru the country school reach the great mass not now touched by the farmers' institute and the experiment station, and thus from beneath make greater educational possibilities for the farm and the country home. He who enters upon this task must have patience, courage, enthusiasm, and a genius for hard work.

WHAT EDUCATIONAL POSSIBILITIES?

There are two great movements, at least, now operating in the new education for the country child—if it may be called a new education—which gives us a glimpse of the educational possibilities. The first has to do with the spirit of the child, the school, and the home; and the second has to do with the environment of the child, a consideration of the farm, and its interests as educational factors.

First, by the awakening of the spirit I mean that soul-culture that will enable the country child to thirst for and enjoy the best of the civilization of the age. It is the country child's right to be brought into contact with the best of music, literature, and art. There should be no discrimination in this respect between the child living in the fields and the child living on the boulevard. There is plenty of hard work on the farm, much that is necessary

perhaps, and no insignificant factor in the education of the individual to a life of usefulness. But the child's education can impart a spiritual force that will give freedom from the slavery of toil.

Secretary Wilson in a recent interview said:

> All the teachings of the schools and colleges and universities these days have a tendency to lead boys away from the farms, and nothing is done to make the farms attractive to them. I have always believed in the old adage, that if you want a boy to stay on the farm, you must not bear too heavily on the grindstone.

ATTRACTIVE SCHOOLHOUSE AND GROUNDS

This spiritualizing force that will lead to more attractive farms and comfortable homes, better reading in the homes, has its beginning in the improvement of the material environment of the country school. By this is meant the outdoor art movement for more attractive school grounds. The planting of trees, shrubbery, flowers, etc., works a marvelous change in the appearance of things and creates new ideals with reference to the country home. The child becomes a part in the great forestry movement of the country; and it is a beneficent thing to train our children to plant, care for, and protect the trees.

The indoor art movement is bringing more attractive schoolrooms for the country child. That was a significant thing that Mr. Horace K. Turner, of Boston, did when he gave thirty-six pieces of art to the first consolidated country school in Illinois. This donation of statuary, casts, and framed photographic reproduction of the best paintings—all hanging on tinted walls —cannot fail to bring a richer life to the country children who came from schoolrooms lacking in everything calculated to give a spiritual uplift. The improvement and adornment of the 3.6 acres comprising the grounds of this consolidated school will in time bring about a change in the country homes. Soap, fresh water, paint, trees, and flowers, with sanitary buildings, are first. All other things will come in due time, if we do some other things than wait.

There are great possibilities in the library movement, the effort to supply the country school with good literature. Millionaires give libraries and art galleries for the enjoyment and profit of the city children. But who is doing a like service for the country children? It is a hopeful sign when the reading-table, covered with good magazines and books, is finding its way into the country schoolroom. If the school gives the child a desire to read good literature when school days are over, then truly there are possibilities in the movement to establish school libraries for the district school. In this age of good magazines and illustrated periodicals the country school-teacher is doing a valuable service when the children are brought more and more into contact with the best of literature and art. Such work will contribute to the American uplift in national life and, instead of emphasizing the mere money-getting, will point the way to the wise expenditure of the dollar for those things that will contribute to a more complete life.

RELATE SCHOOL WORK TO DAILY LIFE

The second great movement in the education of the country child is to relate the school training more and more to the life of the country child. The course of study for the country child should be more practical. The things surrounding the child on the farm should be utilized in a system of training that will result in greater efficiency for life's work. There are great possibilities for the country child in the United States in the enrichment of the course of study in the district school. The character of agriculture is rapidly changing. The use of complicated machinery is requiring greater skill on the part of the average farmer. Our agricultural colleges and experiment stations are discovering valuable information for the farmers. These discoveries will greatly modify actual farm work when once the mass of farmers appreciate their value. A study of the educational exhibit of the agricultural and experiment stations in the education building of the Louisiana Purchase Exposition reveals the character and vast importance of the investigations of the higher institutions of agricultural instruction. The farmer who takes advantage of such discoveries has a tremenduous advantage over the farmer who remains in ignorance of them.

NEW IDEAL FOR THE FARM

The country school sustains a most vital relation to the new agriculture. There must be created a new ideal with reference to the farm and its activities as means of education for lives of usefulness. Something, in an elementary way, should be taught in the country schools with reference to the soil, plant life, animal life, and farm economics. Illinois is making an exhaustive soil survey of the state, with the purpose of finding the best way to restore the fertility of exhausted land, or to conserve and increase the productive capacity of the better class of farms. The valuable knowledge thus gained should be put in such form that the elementary facts may be taught the country child in an experimental way. It ought to be possible for the average country child to learn the simple facts about the composition of the soil in the neighborhood of the schoolhouse; how to preserve or restore its fertility; the effect of various kinds of treatment of the soil; rotation of crops, etc. This is not to be gained by memorizing the facts from a text-book alone, but with the school garden encourage the child to *do* and observe for himself. More of the *learning* of the average school should come as the result of *doing* under intelligent direction.

In a similar way may be studied plant and animal life on the farm, and practical instruction given the boys and girls with reference to the wise business management of the farm and home.

EDUCATIONAL AGENCIES

In the creation of this more rational system of education for the country child, and thus creating a new ideal with reference to the farm and country life, four powerful agencies are now at work. The first is the great farmers' institute

movement. I shall not enter upon the importance of this work. This is a part of the larger movement for the spiritualization of agriculture. The leaders of this movement do not yet claim to have solved the problem of reaching the farmer. As President Latta, of Indiana, said at the American Association of Farmers' Institute Workers at Toronto last July:

> How can we get the farmers throughout our great country to discern the close relationship that exists or should exist between soil and salvation; brawn and brain; thought and thrift; sense, science, and success; cash, culture, and capacity; work and wisdom; labor and love; ideas and ideals; home and heaven?

There are possibilities for the country child in the country school along these lines.

The second agency is the agricultural college extension work thru organizations of boys and girls in experimental clubs and home culture clubs, etc. This not only reaches the pupils in the district schools, but holds many who have, for various reasons, quit going to school. It serves to interest the boys and girls in the problems relating to the farm, and quickens their interest in the work of the agricultural college and experiment station. It gives the boys and girls opportunity to do original experimental work under expert direction. It reveals to them the possibilities of farm interests and country life.

A third agency is the educational excursion to the agricultural college and experiment station. This affords an opportunity to study the work of our higher institutions at first hand, and gives the boys and girls broader views of life. To walk over the experiment farm; to inspect the live-stock department; to inspect the laboratories where experiments in plant-breeding and soil investigations are carried on—all this reveals the educational possibilities for the country boys and girls as nothing else can. Each returning excursion party is a great missionary force to create a new ideal with reference to the country school.

A fourth agency is the consolidation of country schools, the organization of the district schools so as to secure better elementary instruction, and at the same time bring the possibilities of secondary education to the great mass of country children. The country high school, with its laboratory, experimental gardens, manual training, and domestic arts along the lines of farm activities and home interests, is one of the great practical possibilities for the country child in the United States.

ILLINOIS IDEA IN COUNTRY SCHOOL TRAINING

It is the Illinois idea that the country child is entitled to the best there is in the way of training for life's duties; that the country school for its specific work shall be just as good as the best city school. The three great movements for the improvement of the country school in the United States are improvement in the material environment of the country child, enrichment of the course of study, and consolidation of country schools. In all this Illinois has just made a beginning. The organizations of young people and educational

excursions to state institutions from many counties in Illinois are bringing about a new order of things. To be sure, there are discouragements to be met with in the evolution of the country school. But when I think of the educational possibilities I feel like exclaiming with the Psalmist of old: Lift up your eyes, O ye teachers! And be ye lifted up, all ye people! And behold the new king. Who is this new king? The new type of the American farmer, he is the new king. A man strong in his personal virtues, mighty in his influence for civic righteousness; nature's nobleman, the product of a more rational system of education for the country child.

EDUCATIONAL NEEDS OF THE SOUTH

J. H. PHILLIPS, SUPERINTENDENT OF SCHOOLS, BIRMINGHAM, ALA.

The educational needs of any section of our country must be considered in their relation to those larger elements of nationality to which they must vitally contribute. Nationality is the unit of measurement with which our diverse local conditions and sectional needs must be compared. The American ideal of democracy embraces historical, political, economic, and ethical elements, which largely determine our sectional requirements. However widely the educational needs of the South may differ from those of other sections, they are still in an important sense national needs, and must be considered in the light of national ideals and in the spirit of that broad patriotism which regards sectional problems as vital elements in the life of the nation.

It is not my province today to offer any preconceived theories, nor to attempt the final solution of any of those perplexing problems which the South of today has inherited from the past. I am not here in the capacity of a problem-solver. Perhaps the one immediate educational need of the South today is exemption from the domination of certain near-sighted and dogmatic problem-solvers at home, as well as relief from the well-meaning, but none the less irritating, efforts of long-distance problem-solvers abroad. The one class stands in such close proximity to its perplexing environment that it lacks perspective; it stands so near the fire that it is blinded by the smoke. The other class may have the perspective, but is wanting in accurate and intimate knowledge of facts and conditions. It will be a fortunate era, indeed, not only for the South, but for the nation at large, when those who are intrusted with leadership in public affairs shall possess this happy combination.

To understand the educational needs of the present South requires historical perspective. We must consider her political development, her economic progress, and her perplexing problems of population. The needs of today depend upon the conditions of yesterday. The educational requirements of the present are deeply rooted in the social, political, and industrial conditions that obtained before the Civil War, when the private tutor, the female gover-

ness, and the classical academy constituted the chief educational agencies of a social order that was essentially aristocratic in its organization. The story of the Civil War is too familiar to require rehearsal here; it is the story of destruction and spoliation, of industrial disintegration and social revolution. It is a story partly recorded in books, but indelibly burned into the heart of every southern commonwealth. In a soil thus rendered barren by blood and fire, in an atmosphere thus poisoned by distrust and suspicion, the tender plant of the public school could develop but slowly. Indeed, from 1860 to 1880 the church represented largely, tho decreasingly, the education of the people, because in its organization the genius and traditions of the South were supposed to be loyally and securely preserved. But the awakening spirit of democracy found its earliest expression in the public school. The educational needs of the unprivileged masses gradually developed into conscious wants, and the public school became the most potent instrumentality of a real democracy. At first these schools were contemptuously called charity or pauper schools; later they were known as free schools—a designation scarcely less opprobrious; and lastly they are known as public schools, denoting the schools of the people. These three terms, as employed in the South, indicate three distinct stages in the development of the state-supported school in popular favor, three steps in the progress of democracy.

The public school as a factor in southern life is thus a comparatively modern institution. Outside a dozen cities there can be found today few men and fewer women who have received even a part of their training in the public school. The masses who patronize the schools of the South today do so on account of their growing faith in the state-supported school as an institution of democracy. It must be remembered that it was not until 1880 that the maintenance of an efficient system of public schools came to be seriously regarded as the chief concern of the commonwealths of the South.

The primary need of the South today is a more liberal infusion of the spirit of true democracy, as represented by Jefferson one hundred years ago; the deepening and strengthening of the conviction that the education of all classes of its people promotes the economic and moral welfare of the state; the realization of the American ideal which opens wide for every child, of whatever race or color, the door of opportunity.

A second fundamental condition of educational progress is found in the South's industrial and economic development. The old industrial system was based almost exclusively upon agriculture and slavery. When that system was demolished, the accumulated wealth of a century was swept away, and the South found herself reduced from the wealthiest section of the Union to a position of indescribable poverty. The change in the financial status of the South during the decade beginning with 1860 is strikingly told by Mr. Edgar Gardner Murphy in his recent work on *The Present South*. He shows that the wealth of the South in 1860 exceeded the combined wealth of the eastern and middle states by $750,000,000. In 1870 the wealth of these states exceeded

that of the entire South by nearly eleven billions of dollars. South Carolina, which in 1860 had ranked third in wealth, on the basis of population, in 1870 had fallen to the thirtieth place; Mississippi had fallen from fourth to thirty-fourth; Georgia, from seventh to thirty-ninth; and Alabama, from eleventh to forty-fourth. From 1860 to 1880, embracing the periods of war and reconstruction, there was a shrinkage in the taxable values of the South of more than two billions of dollars, while there was corresponding increase in the property values of other sections. The establishment of a new industrial system upon the ashes of the old required courage of a higher order than that displayed upon the battlefield. The maintenance of an efficient educational system requires as its first condition a stable industrial system and a ratio of wealth to population that will justify the needed expenditure. At first this seemed a discouraging task, but during the decade beginning with 1880 the marvelous industrial revival of the South, resulting in the development of tax values, thru her mining and manufacturing, her railroad-building, and her agricultural interests, inspired her people with a new faith and a larger hope. Her present need is the further development of her natural resources in field and mine and forest; the establishment of an adequate physical basis for her educational system. Remarkable as her progress has been in this respect during the last twenty years, the South still suffers by comparison with other sections. The tax values of 1900 are still below those of 1860. The states in the South in proportion to their wealth are contributing to the work of education perhaps as liberally as the other states of the Union, but their contributions fall far short when measured by the number of children to be educated. In Missouri the annual school levy is about 42 cents on each $100 of taxable property, but this provides $2.50 per caput of the total population. The average school levy in the states of the South is about 46 cents on every $100 of taxable property, but this yields less than 98 cents per caput of the total population, while the average in the United States at large is $2.99. And yet many of the southern states are now devoting approximately 50 per cent. of their total revenues to the maintenance of their public schools, exclusive of local revenues raised by cities, counties, and special school districts.

Notwithstanding her limitations, the South fully realizes her obligations. She frankly admits her comparative poverty, but she does not for this reason seek to excuse herself from her duty to herself and to the nation. Nor does she plead the reverses of 1864 to condone or extenuate the failures of 1904. Much less is the South disposed to excuse her meager educational appropriations on account of the unequal distribution of national burdens, as shown by the annual pension roll and federal tariff legislation. Stimulated by the consciousness of her needs and forearmed by a full knowledge of her difficulties, the South has entered with sublime patriotism and enthusiastic heroism upon the accomplishment of her stupendous task.

The third condition of educational development in the South is found in her complicated sociological problems. Here lies the chief obstacle to the

progress of the public school. In the first place, the land is occupied by two separate races, whose least distinction is the difference in color; whose past represents no common heritage, and whose future, as yet, gives promise of no common destiny. This bi-racial condition of the population imposes upon the South a dual system of schools, thus doubling the burden of maintenance—a burden already heavy—for the taxpaying race. But from Kentucky to Alabama and from Virginia to Texas this burden has been voluntarily assumed and this sacrifice has been cheerfully borne, rather than risk the evils that would accrue to both races from consolidation. In the South's present state of development segregation is indispensable and imperative. To both races in the South the subject admits of no debate. To the weaker race this duality provides the best possible opportunity for development by the process of self-activity; it provides a vocation for the negro teacher, whose racial identity with the pupil constitutes an essential element in the educational progress of any people. To the stronger race it preserves its gains thru the higher average of personal achievement, without lessening its power by the sacrifice of its children. To both races alike it guarantees the fundamental doctrine of race-integrity and preserves the ideal of racial purity.

It is not within my province in this paper to deal specifically with the conditions of negro education in the South. Suffice it to say that the South has voluntarily accepted the task of developing and educating these wards of the nation. This is abundantly evidenced by the fact that since 1870 the southern states out of their poverty have contributed for negro schools more than one hundred and ten millions of dollars—five times the amount contributed for this purpose by private philanthropy. The South of today accepts the race-problem as a heritage from the past, and is content to leave its solution to time and Providence, seeking only to transmit it to the future with the fewest possible complications. The South has committed herself to the policy of educating the negro, in the first place, because it is a solemn obligation, and, in the second place, because of its conviction that ignorance offers a solution for nothing in the universe.

While the South is not indifferent to the problem of negro illiteracy, she has reached the deliberate and solemn conclusion that her greatest and most serious problem is the illiteracy of her native white population. She realizes that the first step for the defense of the state and the honor of the republic—aye, the first condition to the protection and the substantial elevation of the negro—must be the elimination of her native white illiteracy. Statistics show that, while the southern states have only 24 per cent. of the total native white population of the United States, they have 64 per cent. of all the native white illiterates over ten years of age in the country. In the education of the negro the South has been materially aided by the philanthrophy of the nation. The assistance derived from the Hand and the Slater funds, and from numerous benefactions, is gratefully appreciated because of the great good that has been accomplished in laying the foundations of negro citizenship. The Peabody

Education Board, under the guidance of its late lamented leader, Dr. J. L. M. Curry, has done a noble work for the education of both races by stimulating the preparation of teachers in all the southern states. In recent years the General Education Board, by means of a series of great conferences for education held in the South, has helped to quicken and energize public sentiment, and by its wise and generous donations has served to popularize the spirit of the common school and to stimulate the practical and essential doctrine of self-help. With the exception of the liberal assistance of these two boards, the South for twenty years, almost single-handed and alone, has wrestled with the problem of her white illiteracy. The results, however, are far from discouraging. In 1880 the eleven states of the South recorded 22.7 per cent. of their native white population as illiterate. In 1900 this had been reduced to 12.2 per cent.—a reduction of 10.5 in twenty years.

In the mountainous regions of the Virginias, eastern Kentucky and Tennessee, the western parts of the Carolinas, and the northern parts of Georgia and Alabama—an area continental in its isolation as well as its dimensions—with a white population of more than three millions of the purest and sturdiest Anglo-Saxon stock, there are found today two hundred thousand male illiterates of voting age. This army of illiterates occupying the mountain solitudes of Appalachian America are behind, as Mr. Murphy tells us, not because they are degenerates, but because they are "the unstarted." They constitute what Dr. Frost has fittingly described as "our contemporary ancestors"—the belated contingent in the onward march of American citizenship. The cry of the white children of the mountains today is a call to the chivalry, the humanity, and the statesmanship, not alone of the South, but of the entire nation as well.

The question of school organization and maintenance in the South is rendered more difficult because the population is so largely agricultural and so thinly distributed over large areas, with poor roads and inadequate facilities for reaching industrial or commercial centers. Eighty per cent. of the population live in rural communities. The average rural county has eighteen children to the square mile—eleven white and seven black. The census shows that 20 per cent. of the children of school age in the United States live in cities with a population of 25,000 or more. In the South only 6 per cent. of the children of school age live in cities of that class. The development of the rural school thus becomes the most important requirement in southern education. The needs of the rural South are today enlisting the earnest attention of our best thinkers. How to organize our rural communities so as to provide for every child the opportunity to get an elementary education, and to secure for that community a higher degree of economic value and social efficiency, is a complicated problem. The obstacles in the way of its early accomplishment include sparsity of population, geographical barriers, and a limited school fund, together with the apathy of the adult population. The pressing need of the agricultural South is the consolidated industrial school,

which shall become the center of the industrial, social, and civic life of the community.

Of the schools in the cities of the South little need be said. As a rule, they will compare favorably with those of other sections. The South's sorest needs lie in her rural communities. Her country schools, in the main, are unorganized and unrelated, maintained for an average session of four or five months, taught by teachers whose average salary is $25 or $30 per month, in school buildings that cost upon an average less than $300 each. The average county superintendent is incompetent, because the nominal salary will not justify competency. The equipment of the average rural school is meager, and usually consists of what the mental and financial ability of the teacher can provide. Outside of the cities and larger towns of the South there are few high schools, and the passage from the elementary school to college or university is fraught with difficulty. Only 62 per cent. of the children of school age are given even these meager opportunities, and the school life of the average citizen in most of the southern states is only about two and one-half years.

These facts indicate the specific needs of our southern schools, and in every state there is today an organized movement to provide the necessary remedies, and to develop the rural public school into an efficient agency for the promotion of the public welfare. The present movement regards the rural school as the strategic point in the general compaign against illiteracy, and the immediate remedies sought for present conditions involve (1) the supply of more qualified teachers thru the agency of state normal schools, state and county summer schools, and state examinations; (2) better school buildings and equipment; (3) qualified supervision; (4) longer terms; (5) consolidation of small schools wherever possible; (6) the introduction of practical gardening and scientific agriculture; (7) the establishment of a state system of secondary schools, so that there shall be within the reach of every child a high school affording the necessary preparation for college or for the duties of citizenship; and, lastly, (8) the amendment of state constitutions and the enactment of state laws providing for optional local taxation by counties and school districts to supplement the state school revenues.

The present educational movement, in the breadth of its scope, the earnestness of its spirit, and the intensity of its ardor, is without a parallel in southern educational history. In almost every county there is an organized propaganda for better schools; comparative statistics of illiteracy are widely circulated, and self-help thru local taxation is urged from every platform as the only possible remedy for our present educational weaknesses.

In this, as in all other matters, however, the South will be characteristically conservative. The historical conditions, from which her present educational needs have been so largely derived, will not be ignored in the provisions that shall be made to meet the present requirements of her population. The transition from the old aristocracy to the new democracy has not—and, it is to be hoped, never will—entirely obliterate the past. Her schools are today

indebted to the old order for an element of chivalry and an indefinable ethical atmosphere whose ruthless sacrifice to the commercialism of the age would prove a misfortune, not only to the South, but to the nation as well. When the rising years of the century shall have developed her natural wealth, and shall have provided the material foundation for her educational system, the South will lack neither the will nor the power to discharge her obligations to herself and to the nation by the education of all the youth within her borders.

EDUCATION IN THE PHILIPPINES

E. B. BRYAN, PROFESSOR OF EDUCATION AND SOCIAL PSYCHOLOGY, INDIANA UNIVERSITY, BLOOMINGTON, IND.

[STENOGRAPHIC REPORT]

I am to speak to you about the education of a people that lives in an archipelago whose landed area is equivalent to the combined areas of Indiana, Ohio, and Kentucky; a people that numbers eight millions, six and one-half millions of whom are pure-blooded Filipinos—Christian Filipinos—and a million and a half, more or less, wild, un-Christian tribes. And I wish here for your benefit to make a distinction between the Filipino people on the one hand, and those wild and uncivilized tribes on the other hand. There is no closer connection between these tribes and the Filipino people than there is between the American Indian and the audience that is assembled before me in this room. The Igorrotes are not Filipinos, altho they live in the Philippine Islands; the Moros are not Filipinos, altho they live in the southern portion of the Philippine Archipelago; the Negritoes are not Filipinos, as the term "Filipino" is understood and should be understood. They do not resemble them anthropologically; they do not resemble them ethnologically; they do not resemble them historically; they do not resemble them in any point conceivable, except that they all occupy various portions of the Philippine Archipelago.

I fear this thing, that many of you, and many of our people thruout the country, will confuse things Igorrote, things Negrito, and things Moro with things Filipino; which confusion will be very misleading indeed. I said to a certain principal of a normal school today that the thing I feared would be this, that you and your friends and the people who come here this summer will go down to the Philippine village and watch the Igorrotes dance, and that you will not, and your friends will not, go into the educational exhibit to get the other side of the Philippine situation.

Now, more than a year ago a member of the educational system of the Philippine Islands, Mr. A. R. Hager—a man who by training, disposition, and experience was best fitted of all men and women in the Philippine Islands to lead in the educational exhibit at this time in St. Louis—was detailed to take

charge of that work; and, magnificent and fine as are the German and the other exhibits, I assure you that you will get from no exhibit on these grounds greater encouragement and greater hope than from the Philippine educational exhibit, if you will have the pains to go and inspect it.

Before American occupation of the Philippine Islands there was practically no public-school system. There had been repeated attempts, especially on paper, to establish in the archipelago a universal educational system, but there never was an attempt to establish a universal system of education in the Philippine Islands under Spanish rule which was free from the control and guidance of the dominating church. The education of the people was limited almost entirely to the education of those who lived in the larger centers, in Manila and a score of other towns; and so it occurs that after more than three centuries of Spanish rule in the archipelago only a very small percentage of the people are able to speak the Spanish language, or to read and write it.

After Dewey's victory in the Bay of Manila, after the occupation of Manila by the American forces, August 13, 1898, the education of the Philippine people began under American direction. Long before the Sherman Commission ever visited Manila, and long before the Taft Commission reached Manila, this work began. We must never forget that we as a people should give credit to such men as General McArthur, General Chaffee, General Lee, General J. Franklin Bell, and scores of others whose names I do not recall, for the work in education which they started before civil government was established in the archipelago, and for the assistance they rendered afterward. We have the information, too widespread and too deep-seated in our minds and in our hearts in this country, that all that happened in the Philippine Archipelago before the landing of the Taft Commission was killing. This is not true. Many were the army officers that were detailed to teach, and many were the soldiers right from the ranks that were detailed to teach; and the plain truth is that the appetite for education was developed in the archipelago before civil government was established in a single province. The American soldier and his officers paved the way in the Philippine Archipelago for the American teacher.

One of the first things, as well as one of the wisest things, which was done by the Taft Commission, however, was the establishment of an educational system, a secular educational system. To this momentous task Dr. Frederick W. Atkinson, of Massachusetts, was called; and soon after his arrival in the Islands he called a thousand American men and women to his assistance. The archipelago was divided into thirty-five districts, and at the head of each was placed a division superintendent; and you may go out of this convention in any direction, over any railroad, and select the first thirty-five superintendents, or thirty-five county superintendents, you will meet, and you will not have thirty-five educational leaders who will excel the thirty-five men that Dr. Atkinson put at the head of these thirty-five districts. He called a thousand teachers to the Philippine Archipelago; and before those teachers left San

Francisco stories were told, and after they arrived at Honolulu stories were told, and after they left Honolulu stories were told, and after they reached the Philippine Islands stories were told, which would indicate that those teachers did not go there with the earnestness which should characterize their profession. Go out from this convention, over any road, in whatsoever direction you care to go, and meet a thousand teachers, and you will not get a thousand teachers whose preparation, whose training, whose scholarship, whose zeal, whose efficiency, will excel those of the thousand teachers which Dr. Atkinson called three years ago. Many mistakes were made. There will be no attempt whatever to deny or disguise that fact; but the truth in regard to these thirty-five superintendents, and these thousands American teachers, I have stated to you.

In addition to one thousand American teachers in the Philippines, there are about three thousand native teachers, almost all of whom are pure-blooded Filipinos. These four thousand teachers, more or less, are instructing in the day schools of the archipelago two hundred thousand children, using the English language as the medium of instruction. Dr. Atkinson was wise enough to see that the most desirable thing to do for these people at the beginning was to teach them a common language, the English language; and he was a wise enough a pedagog to see that the English language was to be taught properly, it could not be taught as well by natives teachers as by well-trained and competent English or American teachers. And so today in the common day schools of the Philippine Archipelago there are taught, by a thousand American teachers and three thousand Filipino teachers, two hundred thousand boys and girls, using the English language as the medium of instruction. In the night schools, which are made up of men and women from the age of six to the age of sixty, are twenty thousand people taking instruction five nights in the week. In the secondary schools, so-called ("secondary" has not been very closely defined in this country, and it is not nearly so closely defined in the archipelago, of course), there are probably at this time twenty thousand children taking instruction in the higher branches.

All of this instruction—in the public day schools, in the secondary schools, and in the night schools—is given thru the English language. Many teachers who were appointed three years ago to proceed to the Philippine Islands were appointed as teachers of English. They had the notion that their task would be to go to these islands and teach English, and nothing more. That was not true. Every teacher who was appointed to teach English was to proceed to the Philippines to teach school, just as any common school-teacher in Illinois or Indiana would teach school—teaching arithmetic, and history, and hygiene, and geography, and English, and all the other branches of the curriculum, using the English language simply as the medium of instruction.

Many people say to me: Is not that a great waste of time? Would it not have been better for the general superintendent of education to have selected only those people who could use the Spanish language, and then require those people to teach in the Spanish language? Not at all; for the reason that, in

the first place, only a small percentage of the people in the archipelago could have taken their instruction in the Spanish language, because a large percentage of the people there do not know the Spanish language. Furthermore, these people pick up a language almost over night. They pick up language as a sponge takes up water, as a blotter takes up ink. These people are a childlike people, in many senses. I wish, when you consider them from a religious standpoint, and from an industrial standpoint, or from the standpoint of government, that you would remember that they are a childlike people. I wish, when you think of them from an educational standpoint, that you would remember that they are a childlike people. We leave our children at the age of eight or ten months, and go away, and we say good-bye to them, and the way they say good-bye to us is this [waving the hand]. Now, I profess, over here in an adjoining state, to be a professor of educational psychology, and I want to explain that to you. We have been working on child study, and a whole lot of other phases of psychology; and I am going to tell you how it is that the little child can do that. My explanation of the matter is this—and it is the only explanation in the world: he does it that way because that is the way he does it. That is the only explanation. You can go to Germany, as men and women, and stay for a quarter of a century, and you will not speak the German language as an American child three or four years of age speaks English. You can get so you can read a book and understand it, but you will not get the language as the child gets it in early life. I say these people are almost childlike in their nature; and so it would have been a waste of time and energy, besides not being pedagogic, to have undertaken to instruct these people thru any other medium than the medium of the English language. A very small percentage indeed of the inhabitants of the archipelago could speak and write the Spanish language after more than three centuries of Spanish rule. Five years after Dewey's victory in Manila Bay no fewer than three hundred thousand people in the archipelago could speak, read, and write the English language.

These people excel in certain things; in certain other things they do not equal the Saxon child. Briefly, these people excel in all things that are based upon memory or imitation. They excel in handicraft, in penmanship, in drawing, in the rudiments of music, in the rudiments of art. They excel in gaining a working knowledge of language. All things based upon memory and imitation they excel in. In the more abstruse thought-work I think I am correct when I say they do not equal the Saxon child.

Now, what shall be done for these people? Well, many things. What is being done should be continued; but one thing that ought to be emphasized thruout the archipelago—and I am told by a representative of the school system this morning that it is the one thing which Dr. Barrows is emphasizing now more than anything else—is industrial education—industrial education based upon the stock of these people, their history, their traditions, their environment, their industrial development, and their industrial promise. Other

things should not be omitted, but this phase of education should be emphasized in the Philippines.

Because an educational system has been successful with a given people in a given country it does not follow that that system will be successful with another people in another country. What is needed in the Philippine Archipelago is not an attempt to dump upon it the American school system. No educational system can successfully be dumped upon a foreign people. We want an educational system there; and a system is being developed very rapidly that fits the history of these people, their traditions, their habits, their ambitions, their ideas, and their ideals. At the head of the bureau of education stands Dr. David P. Barrows, of California—a man who knows more about the history of these people, their anthropological and sociological conditions, than any man living. As secretary of public instruction, we have General James F. Smith—a man who is a member of the church to which 95 per cent. of the Filipino people belong; a man who believes in those people; a man who sympathizes with them in all their efforts for better things. The greatest encouragement that comes to me this morning is this; that we have such men as these at the head of this great educational problem.

After two years of residence in the archipelago—and the greatest regret of my life is that I am obliged, thru force of circumstances over which I had no control, to say two years instead of twenty years—after two years of life among these people, in which I saw daily, dressed and undressed, the poor and the rich, the ignorant and the intelligent, I am able to say, with all the emphasis that I can summon, that I believe in the Filipino people. I have great hope for them educationally, in the broadest sense. First, they are an alert and intelligent people; second, they are an appreciative people; third, they—especially the more intelligent, more highly developed, among them—believe in the régime under which they have been living for the last four years. And certainly a people that is happy under its governmental régime, a people that is appreciative of all the good things that come to them, a people that is alert and intelligent, is not without great hope educationally.

OUR EDUCATIONAL CREED

Z. X. SNYDER, PRESIDENT OF THE STATE NORMAL SCHOOL, GREELEY, COLO.

INTRODUCTION

A creed should set forth a doctrine based upon philosophy and the scientific conclusions which have been reached and which dominate the thinking world. It is necessarily made up of belief and fact. Belief gives rise to deep-seated sentiment; fact, to rational procedure. The sentiment from which an act springs determines its power, its fruitfulness, its efficiency, and its dignity. The fact in an act measures its accuracy, its permanency, and its trustworthi-

ness. Any stage of civilization is the resultant of belief and fact. Belief may wholly change; fact may vary in its relation to belief and other facts; hence a creed is not an instrument for all time, but for the present. In our own time, political, social, religious, and scientific creeds have changed and are changing. Some of them have been reversed. During our own time, our educational creed has rapidly changed, if not reversed itself. It has changed from accretion from without—the accumulation of isolated facts—to expansion from within in the training of a human being; from mechanical accumulation and tension for all alike, to the building up of a world within each human being in accordance with his tastes and powers, who is responsive in turn to the world about him, as an observer and thinker and social being.

From the above conception, we shall endeavor to set forth our educational creed in the form of theses:

I. *We believe that the application of the doctrine of evolution is fundamental in the interpretation of an individual and his education.*—Evolution implies involution—something to evolve, expand. It has given us the child—physical, mental, moral, social, and spiritual. It has unified him with the universe. It has given meaning to the relation of his natures. It is a working principle for the development of the individual, of groups of persons, of society, of the state, and of the nation. Evolution dignifies the body in that it establishes that all human activities depend upon it. Material prosperity of all kinds, indeed civilization, depends upon the body. The body is the avenue and depository of all knowledge, thought, sentiments, aspirations, and inspirations. The arts and sciences grow out of it. Healthy and strong functioned and functioning cells constitute its stock in trade. For these reasons the utmost attention should be given to physical education. Large and small, strong and weak, sound and unsound—all should share in its benefits. This conception of the body in life largely eliminates the false notions that prevail in the present methods of physical training, which has become largely a contest for triumph upon the part of the strong, rather than a training in life and for life upon the part of all. It has interpreted mind as having a physiological basis. This in connection with the motor nature gives the circuit of learning from muscle to idea, thence to sense, and reversely. All science, all art, all philosophy, all religion, is the evolution of mind and spirit. Hence all education is an application of the principle of evolution. The following laws of evolution are found operating in the processes of the education of a child:

1. Heredity is the *law of persistence.* It is the transmission of characteristics by descent—racial, national, and parental. They may be physical, mental, moral, social, or spiritual. The inside of an animal is the record of heredity; the outside, the record of movement.

2. Irritability is the *law of response.* Concessions, adaptation to environment—variation. Irritability is that property by which the individual reacts upon stimuli.

3. Individuality is the *law of divine initiative.* It is that which charac-

terizes, or identifies, an object, a person, or an organization. It occasions variation from within.

4. Self-activity is the *law of reaction.* It is action against stimuli. The atom, the molecule, the mass, the plant, the animal, the mind, the social mind, the state—indeed, all things react against environment. It does not exist *per se,* but in relation to other action.

5. Altruism is the *law of affinity or mutual aid.* Aggregation—organism—community—association. Altruism is the impulse or sentiment of gregariousness. From chemical affinity to conjugal, parental, and patriotic love it is manifested.

6. Natural selection is the *law of survival of the fittest*—struggle for existence. Natural selection, the great motive force in evolution, is constantly eliminating the weak—the unfit—and preserving the strong—the fittest, or toughest.

7. Environment is the *law of impact*—extrinsic in its nature. Energy from without—stimulus. Environment is the sum total of external stimuli that affect the individual or the mass.

8. Consecration is the *law of devotion.* It is that sentiment which holds to a purpose. It is fidelity to ideals of life and action.

II. *We believe that an individual is an involution of possibilities—a composite potential.*—Every child is a quantum of the past. Some of all that has been is focused within him. There is an inherent life-stress in the constitution of the cells that is responsible to the appropriate stimulus. In him are race, national, and parental elements, and the influence of nature and divinity as it has touched and modified the activities of humanity. The child is a concentration of the ages. The possibility to grow, to think, to feel, to purpose, to do, and to enjoy is within him. We are indebted to the doctrine of evolution for this conception in our educational creed. It has been and is the soul of progress, whether known or not; but as the consciousness of it appears and becomes disseminated, progress is the more rapid.

III. *We believe that the education of an individual is the evolution of the possibilities within him—an unfolding of the potential.*—Education is the expansion of an individual into life, consciousness, ethical interpretation, social participation, and divine recognition. If a child is an involution of possibilities, his education is an evolution of these possibilities into the manifold activities of life in its fullest sense. The education of an individual may be defined as living fully, readily, and righteously, with his environment. It is the adjustment of self, on the one hand, to environment, and, on the other, adjusting environment to self. All that is without acts upon the child; he reacts, and adjustment occurs. All along the line the tendency is to resist, to reconcile, and to adjust.

The body expands into physical manhood; the mind, into intellect, feeling, and purpose; the ethical side, into humanity; the spirit, into the development of the higher life of which faith, hope, and love are the mainsprings. The

using of the elements of life itself at any one stage to prepare for the next stage is the order of training. To force adult life on the child and call it living, or education, is absurd; but using the life of the child, in whatever stage he is living, to prepare him for the next stage is rational procedure. Education as expansion, in the above sense, applies to persons, to states, and to nations.

The above principle recognizes that all education commences in the participation of the child with nature, out of which comes the reality for the participation of the child with real human life. The social activities of the child are but the expression of the expansion of what is within to adjust itself to what is without. His babblings, and later his talk, are but the effort to realize his thoughts, feelings, and wants in social participation. His civilities and communal relations are but the same realization of his mental and social nature. Education for service is, first, for self; second, for others; and third, for God. It is devotion to vocation, to humanity, and to destiny. The impulses to do, to feel, to know, and to exchange are inseparable and fundamental. All social service comes out of them. Children in a group who are doing and exchanging notions and sentiments are aiding each other and performing social service. The permanent solution of economic and social problems must be effected by the application of education or the application of universal life-values. While education is a process of living—real life—it is a formation of the capital stock for future living. The different stages in a human life are the embryonic, the infantile, the adolescent, the adult, and the senescent. The capital stock referred to above, which is accumulated during one stage for investment in a subsequent stage, is an important consideration in the process of education. These different stages have their special students, which is a valuable part of our educational economy. Much has come out of a study of the infantile and adolescent stages. Our practice in many cases has been changed as a result; our pedagogical literature has been enriched; a broader view and a brighter vision of a human being's life have been gained; but not enough has been made of the idea of investment in one stage for the better living in the next. The climax of all educational investment should be the peace, the joy, the happiness, and the sweetness of the senescent period. This view is not the economic and commercial one, but it is the humane and Christian one; so that, as education may be defined as the expansion of a child into present living, it must not be lost sight of that it is accumulating for the future. Much that is being realized in the true school in the way of living will be more fully realized in later life. Our complex civilization cannot be thrust into our schools; but the mode of life suitable for children becomes an introduction to our complex social relations. The school life should grow out of the home life and into it at the same time. There will always be surplus stock of values that may and will be invested when the home relations dawn more fully upon him. The teacher should be more of an inspirer and suggester, rather than a controller and dictator, in the school life; hence, the authority in the school should be subjective in the children rather than objective upon the part of

the teacher. The nearest related activities to a child are industrial. The formal subjects should grow out of these and into these activities, as the use of language should grow out of them and into them. Mathematics should grow out of them and into them; history should grow out of them and into them; literature should grow out of them and into them; and so with other subjects. School subjects are means to living.

IV. *We believe that the possibilities in individuals are variable—no two being the same.*—This gives rise in our creed to individual treatment. It is breaking down the old conception that all are to be ground thru the same mill. There is no movement that is so valuable in our educational practice to give an opportunity to individual creative productiveness. It encourages initiative. It is the principle that preserves the individual in the socialization of the school. Socialization without initiative is deadening; initiative without socialization is narrow. To balance these two is a function of the school. It gives different types of citizens, but it gives the best product of trained men and women along their respective lines. This is what gives rise to the elective system, where the tastes, powers, and aspirations of an individual are reckoned with in the process of his training. It leads to the proper conception of the equality of all people, or rather their inequality.

V. *We believe that the Biological Principle that function precedes structure is equally true in the Educational World.*—Doing precedes structure in all departments of human effort. Someone has said, "expression before impression." Action, or to do, grows out of stress—a nutrition of feeling for something. A feeling to do sends back its reflex influence and deposits itself as structure. The stress to do and attempt to do begets structure. Motives, desires, and ideas become clarified by action, reflecting back into nerve, muscles, motives, ideas, and consciousness. The dynamics of a human action is from expression to impression, and *vice versa* from impression to expression, rather than an attempt to work out arbitrarily ideals and ideas of others. A child should work from stress and image in his own soul, and not from anxiety and image in the teacher's soul. The order is action, motor structure, sentiment, and ideas; and reversely. Hence education results from the impulse to act and the acting; thought, knowledge, and feeling forming and following. This all becomes capitalized child for a new endeavor worked out in the same manner. A process in the training of a child ceases to be educational when feeling and finding a way is not found in it. This is a basis for interest.

Interest grows out of the congruous relation of action, images, sentiment, and ideas, and is measured by the affinity of the pupil's experiences. There is no other real index to the growing child than interest.

VI. *We believe that true socialization of an individual means to transfigure his individual initiative into mutual aid, or humanity.*—Individuality unsocialized is selfishness. It should be transformed. Gregariousness is a fundamental impulse. To stimulate action, images, sentiments, and ideas, and to transform them, is a large part of education. It expands in a course of

education from the relations of a child to his parents and his classmates, to that more universal aid that is world-wide. It even rises above one's own country and takes in the world of human life.

Education should individualize and at the same time socialize. To live in any stage of development is to share the sympathies, joys, sorrows, resistances, and labors of those with whom we live. A misinterpretation of "education is living" is to engraft the life, as the sympathies, labors, and environments of adult life, upon the children. This violation of the natural order is seen in some teaching where the child is required to adapt and work out all the stages of some matured industry. Use his own experiences and lead up to the matured industry. This will lead him gradually to get hold of the historic idea of civilization. Capital stock born in children is always capable of being stimulated, expanded, and invested in immediate interests, or the life of their own kind. To live over civilization in extreme detail is as unnatural as it is impossible. Use the ancestral spirit, but telescope the details.

VII. *We believe that a child is born with the instinct and impulse to know and think, and to participate with his fellows, and that the object of his training is individual; the aim, social; and the end, civic.*—Not individual training that makes him selfish, but training that makes him powerful, just, and courageous; not social training that destroys the identity of the individual, but training that transfigures his ideas, sentiments, and doings into humanity; not a social training that makes the individual feel utterly dependent, but a social training that makes him feel independent in his ability and disposition to help; a training that makes him feel it a privilege to help his fellows, that leads him to seek opportunities to share benefits, whether they be physical, mental or spiritual; not a civic training that enables him to use his state for his own personal ends, but a training that actuates him to regard the interests of the people above self—a training that makes him battle for righteousness on public questions, and for business and purity in politics. A people so trained is the first condition toward the solution of many of the vexed questions that confront our civilization. It is the mission of the school to help bring this about. The school in conjunction with the home has this great work to perform. Like all other movements, it is one of evolution; hence it is slow, but ultimately sure. It must make for the intelligence and righteousness of the community thru the children by stimulating and directing the impulse of self-development, social participation, and civic honesty.

VIII. *We believe that the external sources of education are nature, mind, and spirit.*—While there is considerable study of the value of nature in the process of education, there is not enough attention (the right kind of attention) given to it in the schools and in life. A child glories in nature—in its spirit rather than in its letter, in its touch rather than its study, in its soul rather than in its body. The body of nature is studied rather than its spirit felt and its soul touched. There is a wide difference between science and nature study. Science deals solely with the body; nature study, with the soul. Nature

study is not so much to make people see as it is to make them feel. There is a feeling in the soul of everyone that may be directed toward nature in such a way as to make him feel its beauty, its inspiration, and its uplift.

Mind touches and quickens the possibilities within in the form of history and literature, the capitalized soul of the ages; history as a record of the will of humanity, and literature as an expression of the sayings, sentiments, aspirations, and inspirations of humanity. These are indispensable in the expansion of a human soul as it follows the trail of civilization from the first rude beginnings to the present time. History marks the purposeful activities of people, and literature marks the soul and its longings. Meeting and living with people of high ideals are always stimulating and enriching. The mind of the teacher who is rich in thought and sentiment and ideals touches and quickens. It is an opportunity for a child to come in touch with a virile mind that glows and sparkles with life and can adapt itself.

The spirit of Divinity as it operates in a human soul is a conception worthy of attention. In this materialistic and commercial period in which our civilization is living the utmost importance should be attached to the quickening of the spirit, or the higher nature. It is not meant to decrease our interest in the industrial and scientific aspect of the people, but to feed the spirit. Religion is the life of God in the human soul. The spirit of nature, the spirit of literature, the spirit of the Bible, the spirit of God, should all touch the soul of the child. The pedagogical graces—truth, beauty, and good—should be emphasized more as fundamentals in the real life of the child and our civilization. Faith, hope, and love should be lived more, should be taught more, should receive time for their inception into the lives of the children and people. To study the Bible as mere literature is not enough. This conception would seem to degrade it to the level of all other literature. The four great world-bibles—Homer, Dante, Goethe, and Shakespeare—and the literature that has grown out of them and that clusters about them, are powerful stimulants in the growth of a human being; but the Bible which appeals to all classes, high and low, wise and ignorant, young and old, is the source of spiritual food, and should be recognized above all for aspiration, consolation, inspiration, and ideals of life. It alone portrays the lives of the prophets, martyrs, apostles, and the Christ. Teach it as life—the life of God in the human soul. Such is the creed set forth to all teachers who are leading souls toward destinies in this life and the life to come. The proper conception of the religion of the Bible among a people has been and is an index of its civilization.

IX. *We believe that learning is expressing, thinking, feeling, knowing.*—A common notion of education is that learning consists in knowing. This notion is dominant among the laymen in education, and even among many teachers. There is another view, that education consists in thinking. Another set of modern educators think that education consists in doing. This principle holds that learning consists in all these—expressing, feeling, thinking, knowing. Knowledge ununified is mere superficiality. To think a thought

and not have it energized and not have it in action is to have it but half-born; to express an experience without some sentiment and thought connected with it is but imitation. But to do, to feel, to think, is to energize. It is to make learning a living force. It is putting it into the whole being—body, mind, and spirit. Out of this process comes motor, intellectual, ethical, æsthetic, and spiritual training. This is the development of the whole nature. It is the conception that education is an expression of the entire individual. It is the embodiment of the notion that a trained man is one who has an intellect to think, a will to purpose, a hand to do, and a heart to enjoy.

X. *We believe that the function of the school is to individualize, socialize, and civilize the individual.*—The school should be a place for the fullest participation with nature, with school-fellows, with the home, with the community, and with the inheritances of the race, as expressed in history, literature, and institutions. The school should be a community—a social unity—and at the same time unify itself with the larger life of the world. To bring about these results, there should be a large degree of flexibility in the schoolroom. Patent methods of discipline prevent the fullest and best expression of children in forming social ideas and in their realization. They tend toward having the child live within himself—toward making him self-centered, selfish, and unfit for social blending. The center of interest in the school is the children. The school is organized for them. The teacher and all equipment are for their aid. A chance should be given each child for the development of his initiative; a chance should be given each child to blend with all others; a chance should be given each child to express himself relative to his interests, and his interests to the relations of others. In other words, the school should be just as democratic as it is possible to have it without having it a place of caprice. While the child is led to do something for himself, to mingle with and do for others, he should see his relations to the larger community, the state. Civic life, or the motives, sentiments, and ideas that should actuate him as a citizen, should be nourished and realized in so far as his attainment will permit; making a child a civic force commences early in life.

XI. *We believe that the public-school system should be the most democratic of our institutions and the most efficient for the education of the children, for the elevation of the home, for the solution of municipal, state, and national problems.*—Education is constructive from within; it is subjective. Legislation is constructive from without; it is objective. In the solution of the great moral, social, and civic problems, education must precede legislation. That a law may be effective, it must grow out of the minds and hearts of the people; it must be a product of the social mind.

A modern school is a group of persons and a teacher organized and managed for struggle, aid, and devotion, or for individual, social, and civic service. It is organized and managed in accordance with the living experiences of these constituting the group. The teacher is an inspirer and a guide. He shares his life with the lives of those with whom he lives. Struggle marks the modern

school in that the individual struggles to comprehend the subjects studied in their relation to his life; he struggles to crucify his selfishness and share his interests with those with whom he is living, and thereby aids them. He also continuously becomes more devoted to what he is doing and to the life of the school. He finally realizes that he is one of the civic community; that he is a citizen, and living and working with others, and that all he does is for himself and the community; and, in turn, all the community does is for itself and him. This is based upon the principle that the interests of the individual and the mass are identical.

In a modern school system, from the kindergarten to the university inclusive, the grade or school above should accept the product from the grade or school below. This would eliminate the estrangement that now exists in passing from the kindergarten to the primary school, from the grammar school to the high school, and from the high school to the college or university. In the latter two of these transitions is where we find the falling off in attendance. The greatest slaughter of the children occurs in the entrance years of the high school and of the college. This is because of the extreme estrangement. From one department to another should be as gradual as from one grade to another. A mutual understanding should be among those having charge of of these different departments, so that when a child goes from one to the other he goes with as much joy and ease as he does from grade to grade. The conception that the school is of the people for the children should always prevail. No school should be a preparatory school for the one above; the one above should be a receiving school for the one below.

Again, the organization of the modern school is an economic problem in which the capital stock is *time*. Any school that wastes the time of a child because of its mechanism is unworthy of public maintenance and is behind the spirit of our civilization. It may have to be endured, but is not to be desired. A modern school is for the whole people. The interests of the whole people have become so varied that much latitude should be given for the selection of subjects. A school that is narrow in its opportunity for entrance is not a school for the whole people. A study of our increasing and complex civilization would tend to broaden the teacher and make him feel the true import the more, that the people own the schools. Something must be done to save time.

The modern school is a doing and a participating institution. Much more time should be given to doing with the hands, the head, and the heart—more time to realize ideals by building them and energizing them thru doing. This doing is an excellent basis for participation. Many things are capable of being made in common. The children blend with each other in idea, motive, feeling, and doing. Sewing, knitting, weaving, basketry, whittling, carving, joinery, gardening, nature study, excursions. dramatizing, organizing into groups for work for service, etc., belong to doing. The modern school no longer uses the formal subjects as ends in themselves, but as

growing out of the life or activities of the children, and growing back into them. The application of the above would solve the problem of the overcrowded curriculum. The overcrowded course of study is a result of making subjects ends within themselves. Forsake this fetich and there is relief. The school needs emancipation from the priestly authority of the teacher, and should be placed in possession of the heads and affections of the teacher and children. This would give the true democratic school.

XII. *We believe in the extension of the free public-school system from the kindergarten to a great national university inclusive.*—Every child should come under the influence of a good kindergarten. There are more real doing and real human blending in a first-class kindergarten than in any other place in this world. There are a frankness and a beautiful reality not found anywhere else. It is the place for the bad man's child, the poor man's child, the laboring man's child, the rich man's child; indeed, any child. The kindergarten gets the child before he becomes self-centered, and thru his entering into the spirit of nature and the feelings and activities of each and all it establishes a real democracy, having its existence in their hearts. Should all the children four, five, and six years of age in our great country have this opportunity, and also that of going on in the various departments, what wonderful achievement would be accomplished.

This country of ours that stands among nations as the parent of democracy should have as the crown of the public-school system a great national university. It should be an institution as wide as human thought, feeling and endeavor; an institution where the great world-problems, whether they be of physics, life, mind, society, or state, may be worked upon and solved independently of any influence except that of truth. Great state-problems take time for solution. An institution of this kind would help materially in building the ideals of the nation and in the solution of the problems that arise.

XIII. *We believe that the school-teacher should be trained academically and professionally.*—Nothing can take the place of scholarship. It is the reserve power of every great teacher. It commands the respect and attention of pupils the people, and the state. Professional training is the adjustment of scholarship to the education of the child, the people, and the state. It consists in knowing the child and all the relations that exist between him and his environment. It is a blending of his soul with that of the child in the processes of life. He should be interested in the child's interests and activities, skilled in stimulating them onward and upward to the end of oneness with all that is in the universe of things and energies. He should be a stimulator of thought, a molder of opinion, a prompter and leader of movements in the community. He should be interested and properly active in questions that affect the welfare of the people. His success is measured to the extent he enters into the movements of human endeavor, to the extent he attains their realization.

THE NEW DEPARTURE IN SECONDARY EDUCATION

J. J. SHEPPARD, PRINCIPAL OF HIGH SCHOOL OF COMMERCE, NEW YORK CITY

The dedication in New York city a short time ago of a high-school building devoted to commercial education, and the recent action of the Chicago Board of Education in making provision by an appropriation of a half million dollars for the erection of a building for a similar purpose, mark unquestionably a new departure in secondary education. The two foremost cities in the United States recognize in no uncertain way the important part played by commerce in the modern world, and follow the example set by Germany in adapting education to the needs of the business man. In Philadelphia, Washington, Pittsburg, and Paterson commercial education of secondary grade has been given for some time, but New York and Chicago are the first cities to plan entirely independent schools offering a four-year course. One may safely predict, I think, that within a comparatively few years commercial high schools will have greatly increased in number, and that eventually no important city in the country will neglect this phase of education.

The development of commercial education is but one of the striking instances of efforts now being made to adapt education to actual community needs. Those in charge of secondary education have been rather slow to realize that the old-time course of study for high schools, planned especially as a preparation for college, was failing to attract or to hold great numbers for whom preparation for vocation is of immediate and pressing importance. In spite of the fact that an almost insignificant proportion of high-school pupils seek admission to college, the influence of the latter institutions in determining the course of study for the lower school has been all-powerful, and the program neglected those subjects, however useful they might be, which did not count specifically for college preparation. But all that is changing now. The secondary school is fast coming to assume an independent position, with its own problems to solve in its own way; and these problems concern themselves no longer chiefly with the occasional student looking to a higher institution, but to the great numbers who must immediately take their place among wage-earners. Not the least important among those problems is, in a commercial age and a commercial country, how best to prepare the youth to render intelligent and valuable service in the world of trade.

It hardly needs any presentation of data to prove that this is a commercial age and America a commercial country. It has been well said by one of the foremost of European statesmen that, as the sixteenth and seventeenth centuries were marked by religious wars, the eighteenth by the development of liberal ideas, and the nineteenth by questions of nationality, so is the twentieth century to be distinguished by the struggle for existence among the nations in the field of commerce. The economic phase of history has been always important, but today its importance receives a recognition which gives it

tremendous emphasis. One who notes with a seeing eye present conditions in Europe is strongly impressed by the almost nervous solicitude shown by those in authority on the question of the maintenance of commercial advantage. England is debating with fierce interest proposals to regain lost industrial prestige by a return to protective duties. Continental nations, and notably Germany, are devoting themselves with conscious energy to the task of securing an increasing share in the markets of the world. The present struggle between Japan and Russia is fundamentally a commercial war. The great industries of this country are no longer content with home markets, but are boldly entering into competition with foreign rivals on their own ground. The recent establishment of a Department of Commerce is but an indication of the desire to give governmental aid in the development of commercial interests.

The marvelous inventions of recent decades, multiplying productive power as they do many fold, and bringing the whole civilized world into wonderfully close intercommunication, enormously intensify division of labor, which involves and implies exchange and distribution—processes which are distinctly commercial. And with the vast increase in the extent of exchange and distribution there has come an increasing complexity in their management. Trade has long since ceased to be simple barter. Its rules and processes can no longer be picked up by the fairly intelligent in a few weeks. In its higher phases it puts to test the keenest minds, and in its ordinary phases it affords ample opportunity for the exercise of more than ordinary gifts. In a notable address, delivered in Philadelphia a decade ago, Speaker Reed made a significant prediction concerning the importance in the near future of the man of affairs. Business men, he said, would in a short time be the dominant factors in American public life, and business, rather than law, or medicine, or the ministry, would offer the greatest opportunities to ability of the highest grade. In the light of this prediction, an examination of the statistics gathered concerning this year's graduating classes at Harvard, Yale, and Princeton is both pertinent and interesting. In each of these universities the greater number of graduates now make choice of a business career, or some technical pursuit intimately related to business. At Harvard more than half the graduates who responded indicated that business, or some vocation closely allied to it, was to be their life-work, while Yale and Princeton show an even greater tendency in the same direction. This is a striking and a very suggestive change from the time, not very remote, when the ministry, the law, and medicine seemed to be the only suitable careers for the college graduate. Little wonder that our universities one by one are establishing schools of commerce designed to give appropriate and adequate scientific preparation for a field of activity fast approaching the dignity of a profession.

If the secondary school is to render the best service to society, it must adapt its instruction to the needs of the time. If the activities of a community are chiefly or largely commercial, then provision should be made in the course of study for an educational preparation for these activities, and the preparation

should not be merely general. It should include so-called "practical" studies. Those who have contended that education should look only to the cultivation of general power and the acquisition of general knowledge, and should ignore everything designed to be immediately and directly useful, have argued ably, but they have not won their case. The unrest in secondary education noted by Commissioner Sadler in the very conservative German atmosphere owes its origin to the feeling that the training of the school should be more practical; and the same unrest is to be noted in every advanced community. Everywhere we note the loosening hold of the classical studies, and the gradual exaltation of the purely modern curriculum. Almost a decade ago Professor Friedrich Paulsen wrote these lines in his *History of Higher Education in Germany:*

> For the majority of pupils in our secondary schools, even of those who are destined to pursue their studies at some higher seat of learning, the cultivation afforded by modern languages and literature, and by natural science, is a more indispensable matter than the so-called classical education. They need a kind of school oriented to the claims of the present day—a modern *Gymnasium*. Relieve the classical school from the burden of what must be to it an alien task, and it may, I grant, conduct a select number of scholars to a deeper, and therefore to a more really fruitful, study of classical antiquity—a province of culture which I should be the last to underrate. One may, on the contrary, perhaps go so far as to say that there is still no sphere in which a pupil may be so quickly led to the free exercise of comparatively independent habit of thought as in the defined and limited domain of classical culture. Yet it must be allowed that schools the curriculum of which is classical in this definite sense will have no easy place in the coming century. We live no longer in the happy age when the German people, as Bismarck said, fixed their gaze upon the hills of Thüringen. The capital of Germany is Berlin, not Weimar. The outlook of our time ranges across the seas. The active mind of the nation is centered, not on literature and art, but in gaining command of the forces of nature, and in possessing the earth. The point of view is not without its effects even on the thoughts and interests of the generation still at school. Can we deplore it? Would it help matters if we did? The wind bloweth where it listeth. The school cannot create the tendencies of the age, and will therefore do well easily to adapt itself to them.

It needs but a superficial study of the history of secondary education to realize how steadily the modernizing tendency has been at work. Progress in the earlier stages, when classical ideas were so firmly intrenched and suitable alternatives were not easy to offer, was slow indeed. But gradually there has been an enrichment, and English, modern languages, science, and history have now firmly established themselves in the curriculum. Manual training, at first accepted as a harmless fad, a species of "busy work," is now generally regarded as of great educational value, not alone in a general way, but immediately and directly for confessedly practical purposes. Perhaps the most significant aspect of the modernizing tendency just at present is the prominence given to the idea of utility in a consideration of the educational value of subjects. In other words, we are breaking away from the doctrine that a subject should be taught merely for its own sake, and not for any utilitarian purpose. It may safely be said that sciences are studied largely because they serve certain important practical purposes. Physics and chemistry are essential to the

equipment of those who intend to devote themselves to work of a technical character, while the medical man needs both chemistry and biology. Side by side with the colleges whose chief aim is to give a liberal training intended to promote general culture are growing up scientific and technical schools aiming directly to fit their students for immediate participation in industrial activities.

But even from the standpoint of general culture, it may very appropriately be urged that for vast numbers the road to it cannot be along the lines of classical scholarship. It would be a sorry thing, indeed, if the classical education should be thrown overboard as entirely unsuited to the times. It has served its purpose well thru the centuries, and we shall always have need of the sort of scholarship and culture it insures. It should be wisely conserved. But, on the other hand, it should not be forced upon the many to whom it is a discouragement rather than an inspiration. Many a boy and girl to whom classical studies do not appeal evince an interest in subjects whose practical bearing is easily discerned, and for them practical subjects often prepare the way to a broader culture, because latent intellectual interests are incidentally and indirectly aroused.

So much by way of a general argument for secondary commercial education. It would be interesting to trace the gradual development of business instruction from the primitive type of business college to the present ambitious course offered in the great universities, to note the widespread interest and great activity in commercial education in Europe, and to make some predictions as to the future. But, in the brief time allotted to me, it would be perhaps more serviceable to indicate as clearly as may be just what the secondary school can and ought to do by way of preparing its students for business careers.

We may well start with the admirable statement of Commissioner Sadler, of England. He declares that it would be a blunder, from the point of view of the later efficiency of the pupil, to deprive him of a liberal education in order to impart to him an early knowledge of the technicalities of business life. Surely the man of affairs has need of cultivated perceptions, breadth of vision, and the forward-reaching gift of imagination. The accumulated experience of the race, as depicted in the pages of history, will not go for naught in his equipment. The logical and exact training of mathematics, the accuracy of observation and inference which science developes, the discrimination and appreciation which language imparts—all of these are vitally important in making him a more intelligent doer of the many things which present themselves for consideration and disposition to the man of business. The old-line commercial course of the "business college" assumed that a certain technical facility was practically all that was necessary, and so its studies were what might be called form studies. Of content there was little or none. The modern commercial course assumes that a broadly trained intelligence is essential to success in business, and it turns to its use the typical secondary subjects, rich and varied in content. Science is important, not only because

of its intrinsic value, but because of its close relation to the materials of commerce. History not only contributes to an understanding of the main currents of civilization, but throws light upon the economic and commercial changes in a nation or a period. Modern languages are instruments not alone for developing refinement of perception and appreciation, but also for facilitating an understanding of the international aspects of present-day trade. In short, the modern commercial course takes the standard secondary subjects and makes them more vital to the pupil by relating them directly to the world of affairs. There is a danger, of course, of making a study too "practical" and the teacher in the commercial school may sometimes have to be cautioned against an unprofitable application of his subject to a commercial purpose. Literature, for instance, should be taught chiefly for its own sake. A certain amount of so-called "business English" may be useful and necessary, but it should not usurp time which rightfully belongs to a study of the world's masterpieces or the training in spontaneous expression.

The four-year commercial course should then include language, science, mathematics, history, and art. French, German, and Spanish should be offered for the pupil's choice, and it is desirable that the program permit of his taking at least two of them. They should be so well taught that a fair degree of facility in conversation in at least one language should become the possession of the commercial graduate. In other words, they should not be weak substitutes for the rigid training given by the study of Latin and Greek. Science (including biology, chemistry, and physics), mathematics, and drawing should be required for at least three years. History should be studied continuously thruout the course, special emphasis being laid upon the economic aspect of the development of civilization. It should include a very careful and thoro study of civics—a subject too often neglected or inadequately treated in even the best secondary schools. Drawing is of very great commercial value. The refinement of taste which it develops is alone sufficient reason for giving it a place in the curriculum. Æsthetic form is the chief element of worth in many a commodity which finds wide sale in a civilized community. In this respect America has much to learn from its European competitors. Another liberal subject hitherto studied almost exclusively in the college deserves an important place in the commercial curriculum. Economics lends itself readily to advantageous treatment in the secondary school. The laws governing the production, exchange, and distribution of wealth are within he comprehension of the high-school senior, tho he may not any better than his college brother grasp all their subtleties. Economics presents for the pupil's consideration data of the most interesting character, and in its practical applications touches upon nearly all of the vital social and political questions of the day. Banking and finance, international trade, taxation, socialism, all fall within the scope of the subject. And from the purely disciplinary point of view, economics is peculiarly adapted to advanced secondary instruction. Its laws and principles are drawn from facts which must be care-

fully weighed and balanced. It trains the pupil to reach conclusions based upon considerations of a complex character. The syllogism of mathematics is not the syllogism of every-day life. The man of affairs cannot proceed from absolutely fixed premises to definite and unvarying conclusions. The value of his judgment will depend upon the ability to give proper weight to a variety of elements which make up his premises. For training in this practical sort of reasoning a better subject than economics could not be selected. Closely related to economics is economic or commercial geography. The latter throws into broad relief the division of labor—perhaps the most marked feature of modern industrial conditions, and the fundamental basis of trade and commerce.

Thus far we have spoken of the typical secondary subjects common in all good high schools, with the single exception of economics. A program of studies in a commercial school would not in a mere statement of the subjects differ very much from the program in the ordinary high school. What is insisted upon is that they should be taught as far as possible with a commercial bias.

There remains for our consideration the group of studies which are directly and immediately commercial. The business activities of today require from those who would undertake them the ability to write a good hand, to use figures with accuracy and dispatch, to keep accounts with intelligence and economy of time and effort. To these equipments may be added a familiarity with business forms and documents, the laws governing their use, and some knowledge of office economy. In many instances a knowledge of stenography and typewriting is essential, and in any case it is a valuable addition to the young business man's equipment. The commercial course should therefore include business writing and business arithmetic, bookkeeping, business correspondence, and office practice, commercial law, and stenography and typewriting. Business writing and business arithmetic should come early in the course to find their steady application in the later work of the school. Bookkeeping is by no means an easy study if properly taught. It does not seem advisable to begin it before the second year of the course, and provision should be made for its study in the third and fourth years. Competent observers feel that bookkeeping as usually taught is not made to show its real educational value. It is certainly possible to make the instruction in accounts center about certain definite principles. It is by no means necessary for the pupil merely to follow a model in the spirit of an unthinking imitator. In commercial law, also, that instruction cannot be called successful which aims only at giving the pupil a certain body of facts. The subject lends itself to a treatment which is in no small degree scientific. It has been the fashion in four-year commercial courses to postpone the study of stenography to the late years of the course. This is hardly defensible. Pupils in the first and second years may with profit pursue the study of shorthand, and the many opportunities for its use in school makes it possible for them to secure a practical training,

insuring speed and accuracy at graduation. Business correspondence and office practice come more properly after a preliminary training which has made the pupil familiar with many details of business usage. It is perhaps not unwise to place them in the fourth year of the program.

Briefly stated, it should be the aim of the commercial school to give the requisite technical equipment for business, but also to go far beyond that, and by a wise application of practically all the standard secondary subjects to commercial uses to give a depth and breadth of preparation that will insure an all-around efficiency, an easy adaptability to new and important tasks, and a degree of initiative. The graduate of the commercial high school will be by no means a finished business man. But no law school expects its graduates to be finished lawyers, and no medical school assumes that its graduates will be finished physicians. There is much that the successful business man must know, which no school can teach, just as there is much in the practice of law for which no law school offers a prescription. And yet the day has gone by when law is learned by reading in a lawyer's office. The law school has become practically indispensable. And the day is fast passing with the remarkable specialization of all commercial and industrial activities when a desirable all-around training in business can be secured in a business house. The new recruit is assigned to some restricted task, with small outlook into other fields, and unless he has more than ordinary energy and initiative, or is possessed of influence, he is likely to have little opportunity for broader experience.

European countries have made great strides in the matter of providing thoro business training. Germany alone has more than two hundred commercial schools. The United States has hitherto relied chiefly upon the so-called "business colleges." These institutions have been and still are extremely useful, but the demand is now for a business training which involves much more intensive and extensive study than is possible with the highly specialized curriculum of the business college, and in the very brief time which such institutions demand and secure from their pupils. It falls to the secondary school to undertake this work, and I venture to say that the most notable expansion of secondary instruction in the next decade is to be along the line of commercial education.

EDUCATION IN THE AMERICAN NAVY

REAR ADMIRAL CASPAR F. GOODRICH, U. S. N., DELEGATE FROM THE UNITED STATES NAVY DEPARTMENT TO THE FORTY-THIRD CONVENTION OF THE NATIONAL EDUCATIONAL ASSOCIATION

I. INTRODUCTORY

The peculiar sociological development of the United States has imposed upon the Navy Department an extended and ramified system of education. The necessity for this undertaking may be found in the fundamental fact that

ours is not a maritime nation. Whatever delight and profit our forefathers, a hundred years ago more or less, may have taken in a seafaring life, their descendants have sought and seized the larger opportunities offered by agricultural and industrial pursuits for gaining a living, for fostering and elevating the home, and for raising themselves and their families to a plane of existence which grows, from year to year higher and more elaborate, and a way of living which grows, *pari passu*, more costly.

In a general way, it may be stated that whatever of special training the navy needs it must itself supply. The navy alone is capable of providing the means and opportunity by which it secures men capable of handling its guns and ammunition and of laying its batteries with accuracy upon the target. But there are a great number of occupations, trades, professions, etc., represented in the crew of every naval vessel which are so well compensated in civil life that, with the scant pay allowed, the service must either evolve these particular talents out of its own *personnel* or go without them. I might run thru the long list of trades represented in a typical ship's company and point out their active duties and their passive or reserved duties, for both of which the men must be competent. It is only by taking willing and intelligent men, who are disposed to go to sea with us, and then schooling them in the particular way we need, that we succeed in maintaining the efficiency of our ships.

You will note that the education of the blue-jacket is in large measure not so much education in the generally accepted sense of the word as training in a number of trades. The education of the officer, however, falls more readily under the generally accepted classification. It is effected in a manner less diverse and more progressive, and vastly more extended, for it ends only with life itself.

II. NAVY CORPS AND THEIR EDUCATIONAL NEEDS

The officers on board a ship are divided into certain classes according to the nature of their duties. One class commands and maneuvers the ship, drills the men, fires the guns, and operates the engines. Its members are called "line officers," and with them solely lies succession to command. This corps is recruited from the graduates of the Naval Academy.

We have also surgeons, drawn from civil life and admitted to the navy after the most searching examination.

Inasmuch as the ship consumes large quantities of provisions, ammunition, coal, and other stores, and is in itself a small community wherein each member works for hire, it is necessary to have the business side of life represented; and so she carries a pay officer, with his clerk and assistants.

The special care of the ship's engines, boilers, and the wilderness of auxiliaries rests with the officers detailed for that particular duty, who are at present line officers as well as engineers.

The marine officers were at one time graduates of the Naval Academy, but since the enormous expansion of the navy has set in, this institution has been

unable to supply even the demands of the line, so that the recent additions to the list of marine officers are drawn from civil life.

Lastly, among the commissioned officers are the chaplains, who are taken into the service on the diploma or certificate of a theological college or seminary.

It goes without saying that all officers are compelled to undergo a rigid physical examination before being commissioned.

III. THE EDUCATION OF THE LINE OFFICER

The most important as well as the oldest educational enterprise which the navy has undertaken is the training of the midshipman at the Naval Academy to become an officer of the line. Without confining myself too closely to figures, which may change from one year to another, I may say broadly that today every senator, representative, and delegate in Congress is entitled to have two midshipmen at the Naval Academy, while the president can appoint five each year. This he does by nominating the individual to the Navy Department, and the Navy Department examines the lad. If he can pass the prescribed physical and mental examination, he becomes a midshipman, enters the Naval Academy, and begins his course of instruction.

The boy spends four years in all at Annapolis, and then goes into the service for a probationary term of two years, after which a final examination ensues; and, if he passes satisfactorily, he receives a commission in the navy as ensign, the lowest grade of line officers. He is now on the way to the highest rung of the ladder, the admiralcy. Eight months of every year are devoted at Annapolis to the study of the elementary branches, mechanical drawing, English, chemistry, history, mechanics, mathematics, physics, French, Spanish, seamanship, ordnance, gunnery, marine engineering, navigation, and other professional matters. Three months are spent in the practice cruise on board a ship, by which the boys get their sea-legs, or sea-stomach, and the sea-habit—most important of all. For one month each year they are granted leave, corresponding to the vacation in ordinary schools. Altho the Naval Academy does not pretend to a very exalted grade of education, still in its special lines it goes very far, and the pace is very rapid, so that the boy who finishes the four-year course must be one of average intelligence and rather more than average industry. An inspection of the program of studies will reveal the great preponderance of the mathematical branches. This preponderance is a natural sequence of the fact that today a naval officer's duties are to a large extent intimately associated with engineering and navigation, both of which have mathematics for their basis.

I am not singular in believing that the weak point in our entire scheme of education of this country lies in the primary school. It is the rarest thing in the world to find boys and girls of, say, fourteen years, who can read and write and spell and cipher with even tolerable accuracy. This same complaint of incomplete preparation in English branches comes from every college and university in the land.

The Academy pretends only to lay the foundation of an education—to supply the irreducible mininum, as the diplomats say, of schooling. It can, indeed, do no more. As a fact, like others, we only learn our profession by practicing it. It is on board ship and in carrying on the duties of ordinary ship life that the young man gradually widens his mental horizon and becomes familiar with all the duties of the naval officer. This would be abundantly true were the naval profession fixed and immutable. How much more true must it therefore be when we reflect that everything about the navy, material and moral, is changing from day to day, and that so keen is the competition that we must work hard, long, and unremittingly to maintain our place in the procession.

In the lower grades the line officer becomes accustomed to consider the questions which lie ahead of him—those of command; and when in command of a single ship, especially if cruising in a squadron, he reaches still farther out and touches the problems of flag rank—the command and maneuvering of the fleet.

I may remark that our ships are designed by and constructed under the supervision of a corps of naval constructors, graduates of the Naval Academy, who learn their special trade either abroad at the Polytechnique in Paris, the Royal Naval College at Greenwich, the Glasgow School of Marine Architecture; or at home, under a recent arrangement, at the Massachusetts Institute of Technology.

We have also in the navy an institution to which I have the honor of standing as godfather—the Naval War College, at Newport, R. I., where officers of higher rank meet and discuss questions of strategy, tactics, and the art of naval warfare. At this college there is little of teaching, so called; it is rather by meeting together and discussing the points mentioned that progress is secured. Every year a general problem of strategy is laid before the officers who attend the course, and much hard and faithful work is done during the entire summer in threshing out the main and the incidental questions. Cases and schemes of tactics are also discussed by them, and situations in international politics presented as well, with a view of illustrating the principles of international law by concrete examples. Next to actual experience afloat, the Naval War College is the most important factor in our training of captains and admirals.

Newly appointed assistant surgeons are put thru a special course at the Naval Medical School in Washington, and young marine officers spend the best part of a year at the School of Application in Annapolis.

IV. THE APPRENTICE SYSTEM

Just as one set of boys is taken to Annapolis and trained to become officers, so is another set taken to Newport, R. I., enlisted as apprentices, and taught the trade of the common sailor. They spend six months on shore in commodious, well-arranged barracks, where they are instructed in the rudiments of English, and, above all, in the care of their persons, their clothes, their bedding,

and in drills of various kinds found in the naval service, infantry, field artillery, signals, etc. Another six months are spent in a cruise in a training ship, and then the boy is drafted into the service, where he completes his education in the old-fashioned way—by practicing it. These boys come in originally between fifteen and seventeen, and serve during their minority. Everything in the naval service is open to them in the way of petty officers' appointments and emoluments, and the position of warrant officer—gunner, carpenter or boatswain; while to the latter class of officers are yearly reserved twelve appointments into the line of the navy for such as can pass a satisfactory examination.

The training stations—for there is a second one at Mare Island, similar in all ways to that of Newport—have proved utterly inadequate to supply the number of young men required for the navy. Just after the Spanish-American war it was sought to supplement the productivity of the training stations by taking into the navy a large number of young men, not under eighteen years of age, and instruct them in the ways of ship board. These are known in the service as "landsmen for training," and while they do a great deal of excellent work, the bulk of their time is occupied by drills, exercises, and tuition on board ship. As a matter of fact, they do stay a little while at a navy yard prior to going afloat, but it has been found that the briefer this period the better.

There is, as you will perceive, a marked difference in the two methods employed. In one instance we take the boy, train him progressively, and allow him to get into the regular service only after he has spent a year or more under tuition and observation; in the other case we take young men and, after a very brief term on shore, send them either in special training ships in large numbers or directly to vessels in commission. Each of these systems has its advantages. The apprentice training system is terribly handicapped by the youth, frivolity, and mischieviousness of the boys who come. In spite of our precautions, many creep in from the slums of the cities; not a few have bad records; and oftentimes they are brought by parents and guardians and handed over to us as apprentices merely for the purpose of getting rid of them, of banishing them from homes which they have rendered practically uninhabitable by their boisterous, vicious, or even criminal practices.

The "landsmen for training," on the other hand, are, as a rule, five or six years older than the apprentice boys; that is to say, they will average about twenty-one or twenty-two years of age, are more mature, more thoughtful, more capable, less mischievous, more anxious to do what is right; and altogether they furnish us with far more pliable material. The probabilities are that eventually the apprentice training system will be greatly reduced in size, while the numbers of landsmen for training, on the other hand, will be greatly augmented. Theoretically, the apprentice training system is the better, but the practical disadvantages have reconciled many thoughtful officers to its abandonment.

V. THE NAVY'S TRADE SCHOOLS

1. *The school for seamen gunners.*—It is not necessary to devote much of your time to the intimate study of the many trade schools which the navy has been compelled to found, and to which brief reference has been already made. A hasty glance in passing must suffice. The first of these schools, chronologically speaking—that for seamen gunners, so called—was established at the Torpedo Station, Newport, in the eighties. Seamen (preferably apprentices) who reach proficiency are called "seamen gunners." The graduates of all these schools are given diplomas, and they receive $2 monthly as extra pay. The instruction occupies three months in the shops of the Naval Gun Factory, Washington, and three months at Newport, R. I., making a six-month course. That at Washington consists in practical work which would fit a gunner's mate to perform the ordinary repair work required of him on board of a modern battleship; i. e., brazing, soldering, etc.; together with instruction in the latest types of guns, mounts, breech mechanism, and sights; also in projectiles and powder charges. At Newport the course consists mainly in torpedoes, high explosives, the manufacture and care of smokeless powder, fuses, and primers. During the summer months, or when the weather permits, a course of diving is given, and men are certified as qualified divers when competent to work under water at certain specified depths.

2. *The school for electricians.*—The electrical class is situated in the Navy Yard, New York; and at the present time the members consist of electricians who are recruits and who have had no experience on board of vessels of the navy. They are taught the care and management of dynamos, high-speed engines, and the means of interior communication on board ship. In addition, they are given instruction in wireless telegraphy, and those who show special aptitude for this work are detailed exclusively as wireless-telegraph operators. The course of instruction is three months, and a very good class of electricians is turned out.

3. *The school for machinists.*—It is the intention of the Department to establish a machinist class at the Navy Yard, Norfolk, Va. The course of instruction of this class consists in instruction in boilers, both Scotch and water-tube, main engines, pumps, auxiliary machinery, steam-launch machinery, indicators, and general electric work and repair work.

4. *The school for torpedo-boat machinists.*—The machinist class for torpedo-boat service is situated at Newport, R. I., and men are particularly instructed in this class in the care, management, and running of high-speed engines, water-tube boilers, and torpedo-boat machinery.

5. *The school for artificers.*—This particular school deals with the special trades, and instructs carpenter's mates, shipwrights, blacksmiths, plumbers, painters, etc. The artificer class is situated at the Navy Yard, Norfolk, Va., and is under the supervision of the naval constructor.

6. *The school for writers or storekeepers—or yeomen.*—The yeomen class is on board the "Hancock," at the Navy Yard, New York. Men are

selected for each particular line of work. Those who are expert accountants are generally assigned to the pay yeoman division; good penmen are generally assigned to the navigator or executive officer's division; stenographers and typewriters are instructed in the duties of a captain's yeoman; while bookkeepers are, as a rule, made equipment and engineer's yeomen. All members of the class are, of course, instructed in the navy regulations, typewriting, and official correspondence. I may remark parenthetically that the navy brand of red-tape flourishes like the green bay tree.

7. *The school for cooks.*—Ship's cooks and bakers are instructed in the duties of their ratings, both on board the "Hancock," and "Franklin," at the Norfolk Navy Yard.

8. *The school for musicians.*—The musician class is on board the "Franklin." All musicians enlisted and all "landsmen for training" who have musical ability are assigned to duty in connection with this class.

9. *The hospital corps school.*—This school is situated at the Naval Hospital, Norfolk, Va. The course consists of three months' instruction and drill in nursing, elementary anatomy, physiology, elementary hygiene, materia medica and pharmacy, bandaging and splints, first aid, discipline, and drill.

10. *The school for submariners.*—The submarine boats "Porpoise," "Shark," and "Pike," at Newport, R. I., are used for instruction of men who volunteer for service on board of those vessels.

11. *The school for torpedo-boat firemen.*—This supplies a short practical course for selected men, young, intelligent, and active.

12. *The school for petty officers.*—The universal cry thruout the service is for petty officers—corresponding to the army's noncommissioned officers. They are the leading men in all places and at all times: boatswain's mates, who carry on the deck routine and help on the work with their cherry pipes and calls; coxswains, who command their boats when absent from ship; etc., etc. Without them we should be greatly embarrassed. Their positions are the stepping-stones to the warrants of boatswains, gunners, and carpenters. Every captain is on the lookout for promising material among the crew out of which to make petty officers, which, when found, he sends to Newport for particular instruction.

I have sought to give only a general outline of the methods by which the navy has endeavored to reach the end it had in view in any particular case. So highly do we rate education that we look upon it as a duty, which may not be neglected, to reduce the figure of illiteracy on board our ships to zero. There is no regulation or departmental order on this point, of which I have any knowledge, nor is one necessary; for whenever on board ship we find a man who cannot read and write, instinctively as Americans we get up a night school in order to rid ourselves of what we cannot help feeling to be a reproach. Under these circumstances, and in view of what has been said, I think I can assure my compatriots in this convention that they need lie under no appre-

hension regarding the responsibility which rests upon the navy to see that our country, even among its blue-jackets and marines, shall not fall behind in the march toward universal enlightenment.

EDUCATION IN PORTO RICO

SAMUEL McCUNE LINDSAY, COMMISSIONER OF EDUCATION IN PORTO RICO

[AN ABSTRACT]

There is something peculiarly interesting in watching the transplanting of anything, because the process involves a test of the vitality of the thing transplanted, of the surroundings into which it is brought, and of the modifications or transformations of which it is capable.

We are engaged in transplanting the American free public schools to a tropical climate and among a people speaking a foreign language. It goes where there were schools before, but schools that spoke of another civilization older than our own, and based on entirely different ideas of the rights of man and his duties to his fellows. There were a few well-educated people in Porto Rico; and 522 schools, with 22,000 pupils enrolled, seven years ago was the high-water mark of what Spain accomplished. We found no savage tribes; we found no opposition to all of the aids that education has to offer in the process of civilization. Indeed, we found a singular preparedness for, and willingness to accept, American ideas and ideals. But we found no free public schools, and no real interest in the education of the masses of the people. Less than seventeen persons in every hundred of the population could read and write, and a still smaller number had even the most elementary notions of the world in which they lived, and of their relations and duties to the natural world or to their fellow-men.

The schools we found there seven years ago were wretchedly equipped and poorly taught by teachers who were rarely paid at all for their services, and who had to rely entirely upon themselves for guidance and encouragement. What percentage of the pupils enrolled was in actual attendance we do not know. We do know there was no enthusiasm for education, and that the name of teacher was a by-word for misfortune.

Seven years is a short period, but in that time we have established nearly twelve hundred schools, most of which are equipped with the best modern appliances for work; over fifty new buildings, some of them fine, large, modern structures have been erected; schools have been graded, and now offer all grades of work, from the regular kindergarten in the large towns to the primary and grammar school, to the high school and normal school, with provision for nature study and special agricultural work, and with considerable provision for manual training and industrial work. A new professional spirit has been infused into the teaching body. To every eight native teachers one American teacher is employed, working alongside of his Porto Rican colleague, at the

same salary, and under the same conditions. The Spanish language prevails in the schools, but English is taught in every school in the island, and there are an increasing number of schools in which the entire work is done in English. Last year these schools enrolled 70,000 pupils; and while I do not know as yet how many different pupils have been enrolled during the school year just ended, we had during the first two terms an average daily attendance of nearly 45,000.

We are trying to make these schools stand for democratic ideals, and they are open alike to boys and girls, negro and white, rich and poor. We spent on their support over $600,000 from the insular treasury during the past year, and $150,000 from the municipal treasuries. This represents 28 per cent. of all revenues raised for taxes; and yet this sum is wholly inadequate to the needs of the situation. We are able to provide school accommodations for less than one-fifth of the population of school age. Three hundred thousand children must go every year without any school training so long as these conditions prevail.

If the people of the United States really desire to build up a new civilization in Porto Rico, to establish a new democracy, they must stand ready to extend the necessary aid. After the people themselves have done all they can, it is the duty of Congress to vote millions of dollars, and to respond to every call for the proper support of enough public schools to give a seat to every Porto Rican child who is knocking for admission.

THE EDUCATION OF THE SOUTHERN NEGRO

BOOKER T. WASHINGTON, PRESIDENT OF THE NORMAL AND INDUSTRIAL INSTITUTE, TUSKEGEE, ALA.

Every nation, race, and generation has its own special and peculiar problems. Each group of people in each period of its existence is likely to feel and argue that its difficulties are the most trying and serious. We often forget that if one generation could settle all the difficulties, there would be little left for the succeeding one to do. For two hundred and fifty years and more one of the questions that have interested and permeated every section of American life has had to do with the presence and influence of the black people in America.

Upon many vital points affecting the Negro the nation has been divided from the first. As far back as the seventeenth century a portion of the nation sent ambassadors to the natives in Africa, saying: "Come hither and we will do thee good;" while another portion said to the African: "It is best for you and for us that you remain away." Later came slavery, and the division of American sentiment was still more evident. One portion of the country said that slavery was righteous and best for the Negro and the nation; another said that it was sinful and hurtful to the Negro and the nation. Still later

came freedom, and another division appears. One element said that the Negro could not be educated; another said that he was capable of education; another element claimed that whenever a mulatto exhibited qualities of executive ability, or of organizing power, it was the white blood that should have the credit; still another element just as emphatically claimed that the mixing of the races tended to weaken the Negro. Another element claimed that the salvation of the South would only come when the Negro departed from its cotton, rice, and cane fields; still, whenever the emigration agent appeared, he was usually met and virtually forbidden to take a Negro from southern fields. One element argued that the future hope of the Negro consisted in keeping in close touch with the American white man; another said that it was the part of wisdom to keep the two races as completely separated as possible. One element has argued that the Negroes should return to Africa; another, that they should remain in America. One element contended that with the ballot the Negro was doomed; another, that without the ballot destruction awaited him.

Thus I have indicated a few of the points upon which some of the most intelligent and influential white people have differed in the past. These almost bewildering contentions and differences at least prove two points: one, that the white man, at least on this subject, is not omniscient; and the other, that the Negro deserves the greatest credit for having kept his head and courage in the midst of such confusing contentions and differences. Few races in history of any color could have withstood the tremendous strain of these contending forces during so long a period, and still continued to grow in prosperity, intelligence, Christian character, and numbers. At every point at which the Negro has touched the white man the Negro has had the wisdom to get something that has made him a stronger and more useful citizen.

In the midst of the uncertainties and perplexities, a few strong, definite, and undebatable facts stand out clear and convincing; and these should strengthen our faith and our activities for the future. Centuries ago the Negro began life in America in paganism; today there are nearly ten millions of Christians. He began life without a language; today he speaks the English tongue. From a slave he has grown into citizenship and the ownership of property. Into hands formerly bound by the fetters of bondage he receives today the Bible, the spelling-book, the hatchet, the plow, the trowel, the college diploma. These constitute distinct and potential signs of progress and high citizenship. Nor need we stop at this period to inquire whether this progress represents the influence of slavery, or freedom, or both. It is enough for us to know that it is an accomplished fact, and that our common country should have the credit.

I have been referring to unsettled and debated questions concerning the growth of my people, and I ask to be permitted right here to dwell a little upon one other such question—one that seems to be given considerable prominence just now in the minds of important people. From several quarters the

statement has recently come that education does not only not benefit the Negro race, but actually hinders his progress. If this contention is true, there is no better time, and no more fitting place, to make known the truth than at this great Exposition, which represents the ripest work of hand and head of our mighty country, and especially of that section where the Negro has dwelt in largest numbers, and where his hands have been most active. Who is there so shallow of heart or little of mind that he will not appreciate that but for the Negro's effort in clearing the forests, draining the swamps, building the railroads, planting and reaping the cotton, rice, and cane, the panorama of progress and enlightenment which we behold here would be woefully wanting in completion? But to continue: If we take the most selfish and mercenary view, I claim that whatever measure of education the Negro has received has paid, and will pay more largely in the future.

Reasoning from the known to the unknown, I begin with the Tuskegee Institute. At the close of our school year about 525 young men left the school for vacation. I find by careful investigation that the services of practically all of these men had been engaged many days before they left school. In several cases tickets were sent to defray their passage on the railroads. One firm in Mississippi employed twenty-five students for the summer, and sent tickets to cover their railway fare. In other cases agents representing various industrial plants came in person to urge students to enter their employment. Still others solicited them by mail and telegraph. Those seeking the labor of our students were practically all southern white people. In the majority of cases the students were sought for labor which required, not only skill, but a high degree of intelligence. One manufacturing firm in Birmingham keeps a standing order with us to the effect that it will employ every man that we recommend. It is safe to say that if the number of students leaving the school for vacation had been twice as large, each one would have still found work of some kind.

Investigation shows still further that our students command an average wage that is three times as large as that which they earned before receiving any training at the Tuskegee Institute. That is, expressed in dollars and cents, the southern white people place three times as much value upon the services of an educated Negro as they place upon the services of an uneducated one.

Further, in South Africa there are five millions of black people who have never been brought, thru school or other agencies, into contact with a higher civilization, in a way to have their minds or their ambitions awakened. As a result, the industries of South Africa languish and refuse to prosper for lack of labor. The native black man refuses to work because he has been neglected. He has few wants and little ambition, and his crude and few wants may be satisfied by laboring one or two days out of the seven. In the southern part of the United States there are more than eight millions of my race, who, by contact with the whites, and by education in the home, in school, and in church, have had their minds awakened and strengthened—have thus had their wants

increased and multiplied many times. Hence, instead of a people in idleness, we have in the South a people who are anxious to work because they want education for their children; they want land, and houses, and churches, books and papers. Looked at, then, from the most materialistic and selfish point of view, it has paid to awaken the Negro's mind; and there should be no limit placed upon the development of that mind. From the most selfish point of view, then, the education of the Negro has paid.

We are to live in the South, and sympathy between the races is vital. We must convince the southern white people of the value of educating the Negro; and this we are doing, according to the testimony of the southern people themselves.

Sometime ago I sent out letters to representative southern white men, covering each ex-slave state, asking them, judging by their observations in their own communities, what effect education had upon the Negro. To these questions I received 136 replies, as follows:

1. Has education made the Negro a more useful citizen? Answers: yes, 121; no, 4; unanswered, 11.

2. Has it made him more economical and more inclined to acquire property? Answers: yes, 98; no, 14; unanswered, 24.

3. Does it make him a more valuable workman, especially where skill and thought are required? Answers: yes, 132; no, 2; unanswered, 2.

Let us pursue the economic side still farther:

All will agree that the Negro in Virginia, for example, began life forty years ago in complete poverty, scarcely owning clothing or a day's food. Right here I lay emphasis upon the conditions in Virginia for the reason that the Hampton Institute is located in that state, and is the oldest and most widely known of all our schools. From an economic point of view, what has been accomplished for Virginia alone largely thru the example and work of the graduates of Hampton and other large schools in that state?

The reports of the state auditor show that the Negro today owns at least one twenty-sixth of the total real estate in that commonwealth, exclusive of his holdings in towns and cities, and that in the counties east of the Blue Ridge Mountains he owns one-sixteenth. In Middlesex county he owns one-sixth; in Hanover, one-fourth. In Georgia the official records show that, largely thru the influence of educated men and women from Atlanta schools and others, the Negroes own over 1,500,000 acres of land, and added last year $1,526,000 to their taxable property, making the total amount upon which they pay taxes in that state alone $16,700,000. From nothing to $16,000,000 in one state in forty years does not seem to prove that education is hurting the race very much.

Relative progress has taken place in Alabama and other southern states. Every man or woman who graduates from the Hampton or Tuskegee Institutes, who has become intelligent and skilled in any of the industries of the South, is not only in demand at an increased wage on the part of my race, but there is an equal demand from the white race.

When the South had a wholly ignorant and wholly slave Negro population, she produced about 4,000,000 bales of cotton; now she has a wholly free and partly educated Negro population and produces nearly 11,000,000 bales of cotton, besides more food products than were ever grown in its history.

In the making of these statements, it should not be overlooked that it is not the Negro alone who produces cotton, but it is his labor which produces most of it. And while he may pay a small direct tax, his labor makes it mighty convenient for others to pay direct taxes.

Judged purely from an economic and industrial point of view, the education of the Negro is paying, and will pay more largely in the future in proportion as educational opportunities are increased.

A careful examination shows that of the men and women trained at Hampton and Tuskegee not 10 per cent. can be found in idleness at any season of the year. They have learned the beauty of work, the disgrace of idleness.

But it has been repeated with emphasis that, no matter how much strength of mind or skill of hand the black man may acquire, after all, the weak point is that education does not help but retards his moral growth, and that educated Negro youths are more given to crime than was true in the older generations. In passing, may I remark that a study of the criminal statistics of the whole world shows that it is the young people who are most given to crime? But what are the facts as to the effect of education? Within the last month I have asked and secured direct information as to the criminal records of the graduates of fifteen of the largest and oldest Negro colleges and industrial schools, and the facts are that only two graduates out of the total number have been sentenced to prison, and at the present time not a single man or woman bearing the diploma of one of these fifteen institutions wears the prison garb.

The records of the South show that 90 per cent. of the colored persons in prison are without knowledge of trades, and 61 per cent. are illiterate. This statement alone disproves the assertion that the Negro grows in crime as he secures education. If the Negro at the North is more criminal than his brother at the South, it is largely because the North withholds from him the opportunity for employment that the South gives. It is not the educated Negro who has been guilty of, or even charged with, crime. It is, as a rule, the one who has a mere smattering of education or who is in total ignorance.

From the point of view of intellectual growth and self-help, the education of the Negro has been a success. Few white Americans realize what sacrifices on account of his poverty the Negro has made to secure education, and that practically no school has been opened that has not been filled. View the picture of a black woman teacher from the Tuskegee Institute, teaching a school for weeks under an oak tree, then with hatchet and saw leading the way in the building of a schoolhouse, and receiving for her services a pittance of ten dollars a month! Later, see her closing her school at two o'clock that she and the elder children may cultivate the acres of land about the school building,

from which three bales of cotton are raised toward the support of the school, so that the term is finally lengthened from three to seven months!

In one southern state, year before last, each Negro child of school age had spent upon him for his entire education $1.89, while each child in New York state had spent upon him $20.55. But in spite of the poverty of the southern states and other obstacles, the Negro is not ashamed of his record of forty years of freedom.

After years of civilization and opportunity in Italy, 38 per cent. of the population is illiterate; in Spain, 68 per cent.; in Russia 78 per cent.; in the average South American country, 80 per cent.; while, after forty years of freedom and opportunity, the American Negro has only 44 per cent. of illiteracy to his debit.

I have thus compared the progress of my race not with the highest-civilized nations for the reason that in passing judgment the world too often forgets that, either consciously or otherwise, because of our geographical and physical proximity to the American white man, we are being compared with the very highest civilization that exists.

Finally, there should be no disguising the fact that these are anxious days for my race, and serious effort is ahead; but never for a moment do I doubt our ultimate triumph. Freedom can never be given. It must be purchased. Our success will finally come, as I have insisted on numerous other occasions, by our learning to exercise that patience, self-control, and courage which will make us begin at the bottom and lay the foundation of our growth in the ownership and skillful cultivation of the soil, the possession of a bank account, the exercise of thrift and skill, and the application of the highest culture of hand, head, and heart to the things which the times need have done. In proportion as the Negro can convince the southern white man that by reason of education he can perform in the best manner the services of head and hand which the community desires, in the same proportion will that lasting friendship between the races which is so vital be strengthened. The race, like the individual, that makes itself indispensable has solved most of its problems. In this connection I ought to add that one of the dangers which constantly threaten one race that surpasses another in numbers, wealth, and power, is that it will yield to the temptation of crushing the hopes and ambitions of the weaker people.

There are two ways of exerting one's strength: one in pushing down, the other in pulling up. It is a sign of the highest civilization when individuals reach the point where their strength is used in pulling every human soul up to the very highest point of usefulness and service. In this work the descendants of Africa will pledge themselves to join hands with every white man on this continent. Tho myself an ex-slave, I pity from the bottom of my heart any human being that has undertaken a contract to keep in ignorance and poverty any other child of the Common Father. I have so far freed myself from the domination of racial and sectional prejudice that I can say I

have no ambition higher than the doing of that which will serve the highest interests of all the people of our hallowed Southland, regardless of race, color, or creed.

In this connection let me free your minds, if I can, from possible fear and apprehension in two directions. The Negro in this country does not seek as a race to exercise political supremacy over the white man, nor is social intermingling with any race considered by the Negro to be one of the essentials to his progress. You may not know it, but my people are as proud of their racial identity as you are of yours, and in the degree that they become intelligent, racial pride increases. I was never prouder of the fact that I am classed as a Negro than I am today.

You of the white race do not know of the best that is occurring among my people. Many of you know more of the best in Japanese, Italian, and French life than of that of the Negro right at your door. A people should be judged by their best, not by their worst. One should see the Negro in his industrial and business occupations, and especially in his progress in church, school, and home life, before judgment be passed. There are two classes among us as in all races—the vicious and the virtuous. I can point you to groups of my people in nearly every part of our country that in intelligence, and in the high and unselfish purpose of their school and church life, and in the purity and sweetness of their home life and social intercourse, will compare favorably with the races of the earth. You can never lift any large section of people by continually calling attention to their weak points. A race, like the child in school, needs encouragement as well as chastisement.

My fellow-teachers, let us, as we go out from this great gathering, teach the children of the land that in proportion as they lift their hands to oppress and harm another race, in that degree will their souls be degraded and weakened; but that in so much as they try by word or action to lift up the humblest and meanest and most unprotected of the human family, they themselves will be strengthened and broadened and made after the fashion of the Teacher of teachers, who when on earth became the servant of all, that in the end he might be the Master.

THE PLACE OF THE SMALL COLLEGE

GEORGE A. GATES, PRESIDENT OF POMONA COLLEGE, CLAREMONT, CAL.

[STENOGRAPHIC REPORT]

Mr. President, and Fellow-Teachers:

I find myself under the embarrassment of appearing before you to plead my own cause. It might have been better for someone from the distinctive university life of America to speak on this theme, for I am convinced that there are no circles in America in which the value of the small college is more thoroly recognized than in our great universities. No theme, however, could please me more.

I am to speak on "The Place of the Small College." Among all institutions of education in the world, the American college is a class by itself. A German, Frenchman, or Englishman cannot understand what an American means by the word "college." I saw it tried once. Principal Fairbairn of Oxford in a circle of Yale men was describing higher education in England. It was an informal occasion, and he was several times interrupted by the question: "Dr. Fairbairn, How does that compare with so and so in America?" He attempted awkward answers to each such inquiry, but finally threw up his hands in despair and said: "Please stop asking me comparative questions. There is no comparison."

I am sorry to see our good name "college" somewhat stolen from us. It is being used by business schools, for which we may all have high respect in their place, but they are no more colleges, in the American sense, than they are kindergartens. It is straightout robbery. No teacher of a business college to whom I have the pleasure of speaking this morning will accuse me of discrediting their work. That would be utterly to misunderstand my meaning. It is a mere question of the use of the right name. I deprecate that tendency in our American school life which leads one grade to ape the manners and adopt the name of another grade. It is always the lower filching from the higher. Our high schools are coming to have their "commencements." They have "baccalaureate sermons," altho they have no baccalaureate—i. e., bachelor—degrees to be conferred! They have Greek-letter fraternities and sororities. Even grammar schools have begun the same course. I was once seriously invited to preach a "baccalaureate" for a "grammar-school graduation." The latest I have heard is that the infant school has established its yell. One knows not where we shall land with this degradation of good names. The high school does not honor itself in allowing its pupils to cheat themselves in this insidious way of some measure of the appeal of the college. It should seek its honor in being the best possible high school. Of course it is worse when a college dubs itself "university;" for we are old enough to know better.

The American college began in response to American needs. It remains because it still meets those needs. Otherwise it would have passed as is the custom with outworn garments. The first college, Harvard, was established for this purpose, that the colonists might have competent and intelligent leaders. If they emphasized leadership in the church at that particular time, it was because the church was relatively more in the position of instructor and leader than is its special function now. But the purpose was, not that a few boys should be selected for special privileges, but that the colonists might have intelligent leaders and competent instructors. It was broad democracy. There has been no more formative factor in American life than these same colleges. Their product has gone into the very fiber of the nation's character. Their work has been contributory to the best life of our people.

In my college days, thirty years ago, the American "university" was not yet.

The last quarter of the century at the end of which we now stand, saw somewhat of a reaction toward universities. This began with the founding of Johns Hopkins, our first real American university. That movement, in which our oldest and strongest colleges have been sharing along with the state universities, was wise, organic, timely. Quite long enough had America been dependent on Europe for university work. Our universities will grow from more to more. That reaction from the old-time American college, with its fixed and necessarily somewhat narrow curriculum, came in, as I say, during the last quarter of the nineteenth century. But just in these present years a counter-reaction is setting in in the minds of American educators toward the small college. Now, that remark has little meaning if I simply stand here to make it. If it does not meet a response of assent in the minds of my hearers, then it probably is not true. I ask you, as you look at American college life and note its tendencies, can you not see a reaction from that former action—a rereaction now in favor of the small college? I believe that to be a true historical statement of fact. The place and function of the American college are receiving re-recognition. There is reason in it and for it. Not that we are going back to that same old American college. It too must develop; only it must be in its own way and in its own field. No philosophy of history is logical, however, which takes as its watchword "back to" anything. It is always "forward to" something. We hear the opposite of that sometimes. But any cry, in state or church or school, of "back to" something, is a false cry. We are bidden to "walk with God." Very well then, we must keep up, for "Our God is marching on." So that any change is not back to a former condition of regard for the college, but is forward in the larger life of higher education, in which the new American college has its permanent place.

The distinguishing features of the college, as contrasted with the university, are too valuable to lose from American life. What are these features?

1. The college at its best is far less exposed to "the tendency to foster a narrowly specialized efficiency at the expense of broad and liberalizing culture." College education has for one purpose, preparation for technical and technological training. I find myself radically opposed to the tendencies in certain high places in American education which are tempted to yield to the call of persistent and fierce commercialism. I do not believe that American youth need any urging to make haste to get into commercial life. Recently an article has been written, in one of our large magazines, by a man who has founded a school of journalism in one of our great universities. He "struck" this country a generation ago, a poor Austrian Jew immigrant boy. Today he is the proprietor of three strong newspapers in three large American cities. He has turned around and devoted of wealth he has accumulated a fund to create a school of journalism, to lift journalism, as he phrases it "up out of business into a profession." He wrote to the president of one of our leading universities, seeking advice about a curriculum for the new school. The president answered wisely, but included some courses about the commercial

aspects of journalism. Then behold a phenomenon: This boy, landing in this country poor as a beggar, but become a munificent possessor of great wealth, "calls down" one of our greatest university presidents by saying: "No sir; not one word of commercialism shall be taught in my school. It shall train men for the ideals of a great profession." Fellow-teachers, there is a spectacle worthy of a sculptor's art.

I am speaking of specialization, as over against general culture which the college offers. A few years ago a young American student in one of our universities said to the professor of chemistry there—a man at the head of his profession: "Why don't you make chemistry a culture study, by giving one course of lectures on the history of chemistry?" And the man laughed, and replied: "I want to know what chemistry now is. I care nothing about its history." Go forward twenty years. In that same university that same professor gives annually a course of lectures on the "history of chemistry," and lo, it is the most popular of all his courses!

But I hear the objection, the old call of those who demand that we must specialize early if we are to meet the ambitious demands of our rushing commercial age. They say: "Oh well! Your theories are very fine, but we must meet life as we find it." Friends, that is very true. But woe to America if American educators at such a time interpret that sentiment to mean that we are to leave life as we find it! I take it that the function of higher education is that it finds life at one stage and leaves it at another. American education will not ultimately yield to that subtly fatal temptation. It is just at this point that the American college has found and will retain its own great place, our one place where influence is against early specializing. By as much as a man is more than his profession, or his work, or his vocation; by as much as general culture is more to him who possesses it than any height of specialty, by so much is the college course, modified as knowledge grows, certain to hold its own in the life of the American people.

2. The supreme factor in education is ever the personality of the teacher. The small college offers scope for this function to a degree that is not claimed by the larger university. Great personalities make themselves felt anywhere, but in the general the small college has here a clear advantage. The touch between institution and student, of intimate personal relation, is a never-to-be-forgotten chief factor. Personality is the ultimate fact of education, as of all philosophy and life.

[Mr. Gates' address was interrupted at this point for the reception by the Association of Cardinal Satolli.]

Ladies and gentlemen, I count it an honor to make way for so distinguished a visitor to our country, representing a type of educational and religious life with which I am not formally associated, but for which I trust that I cherish sympathetic appreciation.

I was speaking of the place of personality in education. I visited a university last year in which there was a class of 137 students in geometry taught by

one man at the same time. One should not say "taught"—an impossibility. He was there, presiding and lecturing on geometry to freshmen! He himself said it was a farce.

The head of the department of chemistry in one of our greatest universities wrote to the head of the department of chemistry in a college in Iowa: "Your boys after one year in chemistry come to me better prepared than my own boys here. What can I do with a mob of 350 coming into my laboratory to receive instruction? I can only give them fourteen inches of bench space apiece and send assistants around to look after them. You can 'teach' them but I can't."

The fact is that Germany and France are reacting from the centralization idea. They used to say in Berlin: "If there is a professor in another university that dares to show his head above the commonplace, we get him to Berlin." They have stopped that. German university life is becoming too big to be concentrated in any one place. France is growing away from it. England never had it; the loyalty there is to the small, individual "college" *in* the university, rather than to the university as a whole. In America we are already, by way of reaction, having some tendencies that way. I believe that our friend up in Chicago, when he occasionally desists a moment in his mad career of "affiliating" the solar system, catches a vision of the wisdom of dividing a great university into small "colleges."

The teacher who loves teaching for its own sake will be found more particularly where he can get that personal touch with his pupils. I was speaking yesterday with one of our strong educators of America, himself the head of a university, who said: "I deprecate the tendency to bring university methods into the college."

3. The small college must not be so small and poor as to be mean. There are such. I object to the term "denominational college," as it is too often used. I happen to be connected with a college that belongs under the patronage of a certain denomination; but of the three hundred students in that college only one-third, as they report themselves in their registration papers, are affiliated with our own denomination. Any college that starts out to teach narrowly any kind of doctrine will fail and ought to fail. Truth is free, and must always be taught so; it makes free teacher and taught. The college must be large enough for the "college spirit"—that subtle term which we understand, but cannot define. It must be small enough that that spirit be not impossible thru the fact that the men cannot know each other.

4. We must not overlook the value of the small college next door to that bright boy. Oh, how some of us know what this means! The college bell, actually and in figure, calls to him, and he never would have heard, much less heeded, that call if he had had to go two or three thousand miles to answer it. This fact of comparative proximity, coupled with the other closely related fact of the smaller expense, has been and is of immeasurable significance to our American life.

5. It is a dangerous experiment in the higher education to take boys and

girls from the superb teachers they often get in our best high schools and put them under immature and inexperienced assistants and tutors. One distinct advantage that the small college has is just here. I will not insult your intelligence by elaborating that point.

6. Some sorts and degrees of leadership, easily escapable amid large numbers, are forced upon most students in a college. This is one of the greatest advantages of limited numbers. It is of large significance for women, in an age laying increasing obligations upon them for sane and strong leadership.

7. Statistics abundantly show a far larger proportion of graduates of smaller colleges "doing well" than of larger institutions. A Harvard man has recently, in a brilliant paragraph, shown that this is strikingly true of his own college, comparing Harvard the "small college" before 1860, with "Harvard University" since that time. Some of the best men this country has known would probably never have been known but for some small college.

8. The small college can, and does, cultivate a spirit of loyalty to itself, and to its members, that no great institution can by any possibility do. If the older colleges that have become universities still retain it, it is because of what remains of the "small college" still nestling in the heart of the great university.

In the chief city of the Pacific coast effort has several times been made to organize the considerable number of graduates of one strong Eastern University into an alumni association. The effort has as often failed. Loyalty and college spirit are wanting. The men never knew each other or of each other. Several such associations of "small colleges" of the East are vigorous in this same coast city. Men in the great universities may indeed "know as many students, but they do not know them in the same way."

A physician in a city of two hundred thousand people, a man who in that city stands at the head of his profession, said to me a few days ago: "It is the thirtieth anniversary of my college graduation; my college is three thousand miles away; but my patients must seek other help. The college calls to me and I must go." It is the college of which Daniel Webster, pleading his college's case in the Supreme Court, said: "It may be a small college, but there are those who love it." Let us not lose the glorious friendships of our youth, such as go with the best American college spirit. They are among the choicest things in our lives. God pity us, if the mad spirit of commercialism or any other delusion robs us of great life itself! There are few brighter pages of life than the beautiful memories and friendships of our best American Colleges.

Finally this general word: that higher education, which will permanently command respect and allegiance will be found to consist chiefly of the enlargement of life. However "practical" or impatient our age, "getting a living" of whatever sort will not satisfy as a goal or ideal. We may as well understand that there can be no "tendency," looked at in the long and large, that fails to justify itself before the bar of the clearest vision and the sanest judgment of what human life is for. That unique thing, the American college, seems to have an abiding place in ministering to such an ideal.

THE PREPARATION OF TEACHERS IN GERMANY

DR. LEOPOLD BAHLSEN, COMMISSIONER OF THE GERMAN SCHOOL EXHIBIT AT THE LOUISIANA PURCHASE EXPOSITION[1]

Mr. President, Ladies and Gentlemen:

First of all I wish to thank you for the honor you have shown me by inviting me to speak in this magnificent Festival Hall, the universally admired central feature of this glorious World's Fair; and to speak to an audience composed of ladies and gentlemen who are all interested in the important questions regarding the culture and the intellectual progress of the human race—the question of *education.* I assure you, the government which has sent me here to represent the German school exhibit takes the most active interest in all matters pertaining to the National Educational Association, and its various educational councils and congresses.

The question on which you have kindly invited me to speak to you—the preparation of teachers—is one of the most important among the many questions which you touch upon in your various meetings and congresses, in so far as it is the question of the training of men and women to whom the parents intrust the education of their boys and girls, the future citizens and hope of their country.

The occupation of teaching is a noble, a difficult, a highly responsible one, requiring a vast amount of idealism and a full devotion to the noble cause. And this, I am happy to say, is to be found among American teachers no less than in my own country. It was one of the most impressive pedagogical experiences in my life when I had the opportunity of teaching in the United States, in the Teachers College under the auspices of the Columbia University of New York, whose highly respected president, Professor Nicholas Butler, may be considered an ideal educator, both as a teacher in the university and as a leader in the most difficult problems and questions of public education.

From my experience and observations in this country of rapid progress, I know there is no lack here, as there is none in the old country, of well-educated earnest teachers. Your work is not in vain, and your teaching will take root in the young hearts, and will bear fruit in the later life of those who are to work after us in the great field of education and humanity.

The teacher in our German schools—and I suppose in all well-regulated schools of other countries—must be able to fulfill two requirements: First, he must have the humanitarian qualities necessary for every true teacher, a love for his work, and a genuine interest in the child who is to be intrusted to his care, combined with the moral qualifications without which he could never be the shining example which his pupils have a right to expect him to be, not only in matters of scientific knowledge, but in matters of heart and home.

[1]By request of the author the simplified spellings adopted by the Association are not used in this paper.—EDITOR

The second requirement is that he shall be thoroughly versed in his line of work; for, while it is quite true that the most highly educated people do not always develop into the best and most successful teachers, yet it is equally true that knowledge should be the first requisite of the teacher, and that nothing weakens his authority or his usefulness so quickly as the realization on the part of his pupils that he is not well versed in that which he is trying to teach them.

I could add a third thought to these requirements, and that would be in regard to the pedagogical skill which to a great extent is a gift of nature, but which is not generally recognized, or appreciated, until the teacher stands before his pupils to fail or to succeed. Even the best-equipped teacher must necessarily pass through a period of practice work before he can safely rely on his ability.

Now as one must recognize the truth that pedagogical skill can be developed to a great extent with due practice, we give our applicants the necessary scientific training first of all.

In Germany we classify the teachers into four groups, according to the schools in which they work and the educational courses which they must take up: (1) teachers of the lower and middle schools; (2) teachers of the higher schools; (3) teachers of technical, art, and manual-training schools; and (4) the professors of the universities.

Those who wish to teach in the technical, manual-training, and art schools must be able to demonstrate their ability in their chosen line, and must have attended institutions in which they could best receive the necessary training. He who wishes to teach in the university must have attended one of the three varieties of higher schools, and then have studied at least three years in some German university; after which he must win the degree of doctor by special examination, and must prove by some printed, literary or scientific, contribution that he is on the road to independent literary effort.

However, what you invited me to speak about is the training required of teachers in the lower, middle, and higher schools of Germany; and in this connection I wish to say that by the lower schools we mean all elementary schools, the public schools (having only one or two classes, as we find them in the German villages) as well as the primary and grammar schools, their courses of study extending through even seven or eight years, as they are arranged by the local authorities of the larger cities.

In these lower schools no foreign language is taught, and in all other branches the aim of the course of study does not differ materially from that of your elementary schools. Coeducation does not exist, except in some of the smaller villages, and in a very few of the higher schools in Baden. In general, lady teachers are employed only in the girls' schools. These girls' schools are also graded as lower, middle, and higher schools; and of late some higher girls' schools include even Latin and Greek. In its main features the training of the male and female teachers for the lower schools is the same. For the

middle schools, in which one foreign language, generally French, is taught, the teacher must, of course, be proficient in this language.

He who wishes to teach in the elementary schools must have attended a normal school—we call it *Seminar*. No coeducation exists in the German normal schools. He is not qualified to enter such Normal school, or seminary, until he has taken a six-year course in some high school, or (and this is generally the case) has successfully completed the work in some preparatory school, which he can enter from the common schools. No one under the age of eighteen years is admitted to the normal school.

The course of such a *Seminar* is of three years' duration. Their curriculum embraces a course in German and religion, besides history, geography, Mathematics, elementary geometry, biology, pedagogy, method of teaching, teaching in class, agricultural instruction, French or English, drawing, gymnastics, and music. Most of the seminaries are Protestant schools, but we also have many Catholic seminaries of this kind in Germany, and some schools to which both Protestants and Catholics are admitted.

In Germany there are now about two hundred seminaries for male teachers, and only thirty for female teachers; but for the latter there are also many private and municipal seminaries. One-third of these schools are "internate"—that is, boarding schools; one-third are "externate"—that is, have no dormitories; and one-third are a combination of both systems. The number of pupils seldom exceeds eighty or ninety.

During the third year the pupils have opportunity to do practical work in teaching, in a training department connected with their normal school, and under the direction of an able and experienced teacher. This training department consists sometimes of one, sometimes of two classes. In Berlin this training or practice school, connected with the normal school, is completely graded as a middle school. All the male normal training schools are royal institutions, but to some higher city schools for girls has been given the right to combine a normal training school with their higher grade work. The graduates of such schools must pass examinations given by the state commission.

As a rule, the candidates who take these examinations or graduate from normal schools are twenty years of age. Although they have had opportunity during the last year of their work to do practical teaching under the guidance of experienced instructors, this examination, which is the first they have to take, consists only of written and oral tests.

After the candidates have completed the normal course they may be employed as substitute teachers, as occasion requires; but before they may hold permanent positions they must pass a second examination, and that must be sometime within the following five years. Then they are qualified to hold positions in the primary or grammar schools; or they may, according to their ability, receive a certificate which will entitle them to the possibility of working up to a principalship of a primary and grammar, or intermediate, school.

Now as to the training of the teachers of the high schools in Germany: They must have attended a university, the title of doctor of philosophy being a very agreeable, though not an absolutely necessary, addition to their honors.

The educational course of a future senior teacher (*Oberlehrer*) in Germany is as follows: He must attend a higher school—*Gynasium*, *Realgymnasium*, or *Oberrealschule*—whose course of study extends over a period of nine years. From that he graduates at about nineteen years of age. Then he attends a university to study philology or mathematics, history or geography, or the various branches of natural science, in connection with philosophy and pedagogics, including psychology and logic. After studying for three or four years in such a university, he may acquire the title of Ph.D., if this be his ambition, by some dissertation and an oral examination, and then he takes the so-called scientific state examination, which every teacher of the higher schools has to pass.

The government appoints an examining commission for each province, the members of this body being partly very prominent schoolmen, and partly professors of the university of that province. Having successfully passed this scientific state examination, the candidate sends his certificate to the royal board of education of the province in which he wishes to be employed as teacher. Then he is appointed to some state or city school, in which he will have ample opportunity to gain experience by practical teaching. A teacher of the ancient languages is, of course, assigned to some college, while one who teaches the modern languages is assigned to a *Realgymnasium*, and one who teaches mathematics and natural science is assigned to an *Oberrealschule*. This course of practical schoolroom work takes up two years of his time; during the first of which he attends various classes to listen and learn by the example of the older and more experienced teachers. He receives instruction regarding the matters of discipline, organization, rules, and regulations of school life.

He must write essays on various important pedagogical books, essays on the lessons which he has attended, and must plan and write original programs or outlines of such lessons. In the second year he is allowed to teach, under the direction and criticism of the principal of the school. At the end of the year he receives a certificate, as to his qualifications and ability as a teacher, from his principal. And now, finally, he is ready to be employed as a senior teacher, or *Oberlehrer*, in one of the higher schools.

The matter of salary is definitely regulated in the state as well as the city schools, and after ten years of active work the teacher is entitled to a pension, a part of which is transferred to his family in case of his death. This rule regarding salary and pension applies to the teachers of higher as well as lower schools, and to male as well as female teachers.

The educational course of some of the teachers in the higher schools includes a sojourn in foreign countries. Those who wish to instruct in the ancient languages are given an opportunity to continue their studies for a year or so in

the Archæological Institute in Rome. In Athens a similar institute affords opportunity for the study of classical art.

Of course, it is a very great advantage for the teacher of modern languages to have studied such a language, not only philologically at the university, but also practically by a sojourn among the people in whose language he wishes to instruct. The time has passed in which we of the German schools simply study grammar without giving the pupils opportunity to carry on conversational work in the foreign tongue. Where can the German teacher learn, for instance, the French language—I mean the language of every-day life—better than in the land and among the people of France? For that reason it is right that the government regard it as an advantage, and give preference to those teachers who have lived for a time in France or England.

And even this seems to me no longer sufficient. What do we mean by teaching the modern languages? I should say it means not only to teach the language, but to introduce the pupil to the literature, the history, the customs, the mode of life, and the habits of the people whose language he is studying. And we German teachers, who teach the English language in our German schools, must remember that in these lessons we must dwell not only on the literature and life of England, but also on those of these United States. We should bear in mind that English is not only the language of Shakespeare, but also of Longfellow and Ralph Waldo Emerson. And he who wishes to enter fully into the spirit of our present era, in these the opening years of the twentieth century, must remember the glorious development of this country, the workings and accomplishments of this industrious people of the United States.

I shall never forget how much a year spent in the United States helped and inspired me for my work as a German teacher of the English language at a German school. I owe a great vote of thanks to the worthy gentleman whose letter of introduction to the school authorities made it possible for me to visit many of the schools and universities from New York to San Francisco; I mean the man whose educational work has endeared him to every teacher of this country, and whose name is spoken with the highest regard and respect also by teachers of foreign and far-distant countries, the United States Commissioner of Education in Washington, Dr. William T. Harris.

Through traveling in foreign countries the teacher widens his horizon, learns to lay aside many prejudices, and consequently enables himself to broaden the intellect and remove the prejudices from the minds of his pupils. Thus he will help to build up that majestic intellectual bridge which, in spite of the thousands of miles of intervening water, connects the nations of the Old World with those of the New, in the friendly contest of intellectual and other ambitions, in this busy life-work of the twentieth century.

This, I think, is the best advice we can give a teacher, never mind of what nation he may be:

If you wish to do full justice to your noble profession, act as you wish

your pupils to act, live for your country, put your heart and soul into your work; but do not forget to lift your eyes above the narrow confines of the schoolroom, out into the glorious world in which all civilized nations are working for the progress and enlightenment of humanity.

WHY TEACHERS SHOULD ORGANIZE

MARGARET A. HALEY, PRESIDENT OF THE NATIONAL FEDERATION OF TEACHERS, CHICAGO, ILL.

The responsibility for changing existing conditions so as to make it possible for the public school to do its work rests with the people, the whole people. Any attempt on the part of the public to evade or shift this responsibility must result in weakening the public sense of civic responsibility and the capacity for civic duty, besides further isolating the public school from the people, to the detriment of both.

The sense of responsibility for the duties of citizenship in a democracy is necessarily weak in a people so lately freed from monarchical rule as are the American people, and who still retain in their educational, economic, and political systems so much of their monarchical inheritance, with growing tendencies for retaining and developing the essential weaknesses of that inheritance instead of overcoming them.

Practical experience in meeting the responsibilities of citizenship directly, not in evading or shifting them, is the prime need of the American people. However clever or cleverly disguised the schemes for relieving the public of these responsibilities by vicarious performance of them, or however appropriate those schemes in a monarchy, they have no place in a government of the people, by the people, and for the people, and such schemes must result in defeating their object; for to the extent that they obtain they destroy in a people the capacity for self-government.

If the American people cannot be made to realize and meet their responsibility to the public school, no self-appointed custodians of the public intelligence and conscience can do it for them. Horace Mann, speaking of the dependence of the prosperity of the schools on the public intelligence, said:

> The people will sustain no better schools and have no better education than they personally see the need of; and therefore the people are to be informed and elevated as a preliminary step toward elevating the schools.

Sometimes, in our impatience at the slowness with which the public moves in these matters, we are tempted to disregard this wise counsel.

The methods as well as the objects of teachers' organizations must be in harmony with the fundamental object of the public school in a democracy, to preserve and develop the democratic ideal. It is not enough that this ideal be realized in the administration of the schools and the methods of teaching; in all its relations to the public, the public school must conform to this ideal.

The character of teachers' organizations is twofold. Organizations on professional lines existed before the necessity became apparent for those for the improvement of conditions. The necessity for both is becoming increasingly evident, and the success of the one is dependent upon the success of the other. Unless the conditions for realizing educational ideals keep pace with the ideals themselves, the result in educational practice is deterioration. To know the better way and be unable to follow it is unfavorable to a healthy development. To have freedom in the conditions without the incentive of the ideal is no less harmful. It is, therefore, opportune that the occasion for organization in the newer sense, the sense understood in the subject of this paper, should be coincident with the formulation of the most advanced educational theory in a practical philosophy of pedagogy.

Modern educational thought has been dominated by the element of inspiration and the element of science: the former enthroning the child, displacing the subject-matter of knowledge as the center of educational theory; the latter founded upon the faith in underlying laws of human development in harmony with which it is possible to evolve a rational method of eliminating waste in the educational process.

How far the educative influence of teaching under these two motives tends to produce a teaching body capable of the highest kind of organized activity it is not possible to determine. Neither is it possible not to perceive the harmony between the principles underlying a rational system of teaching and those underlying the movement for freer expression and better conditions among teachers.

There is no possible conflict between the interest of the child and the interest of the teacher, and nothing so tends to make this fact evident as the progress in the scientific conception of educational method and administration. For both the child and the teacher freedom is the condition of development. The atmosphere in which it is easiest to teach is the atmosphere in which it is easiest to learn. The same things that are a burden to the teacher are a burden also to the child. The same things which restrict her powers restrict his powers also.

The element of danger in organization for self-protection is the predominance of the selfish motive. In the case of teachers a natural check is placed upon this motive by the necessity for professional organization. The closer the union between these two kinds of organization, the fuller and more effective is the activity possible to each.

Freedom of activity directed by freed intelligence is the ideal of democracy. This ideal of democracy is slowly shaping our educational ideal, and making its realization the function of our educational agencies.

The public school is the organized means provided by the deliberate effort of the whole people to free intelligence at its source—and thru freed intelligence to secure freedom of action.

Misdirected activity is proof that the educational agencies are not properly

functioning. This may be because these agencies have not freed intelligence, or it may be because the intelligence which they have freed is denied free activity.

Misdirected political activity in lowering the democratic ideal, reacts to lower the educational ideal. On the other hand, a false or incomplete educational ideal fails to free the intelligence necessary for the work of constructing a democracy out of our monarchical inheritance.

That the public school does not feel its responsibility in the matter of political corruption, for instance, nor realize the effect upon the schools of this corruption and the misdirected activity of which it is a symptom, is proof that the public school is not yet conscious of its own vital function in a democracy.

When Ida Tarbell and Lincoln Steffens in lightning flashes, disclosed to the American people indisputable facts concerning the business methods of our so-called "good business men" and their relations to politics, they showed a condition of affairs that must make every thoughtful citizen stop and ask: "Whither are we going?" How many public-school teachers, on reading these disclosures, said to themselves: "We must take our share of the blame. The public school, that great agency of the people for freeing intelligence, has failed to do its whole duty." The public school is not wholly to blame. There are other educational agencies. There is the press, for instance. But the press does not belong to the people; it is a private enterprise. The schools do belong to the people, and they are free.

We teachers are responsible for existing conditions to the extent that the schools have not inspired true ideals of democracy, or that we have not made the necessary effort toward removing the conditions which make the realization of these ideals impossible.

We recognize anarchy in the act which takes the life of the chief executive of a city, state, or nation; but there is another kind of anarchy in our midst. It is the anarchy which sends the railroad and corporation lobby to the legislatures and to the taxing bodies—yes, even to the bench—and in whose hands these servants of the people are as wax and obey the command of the lobby, and defy the law they were elected and sworn to uphold. This is the anarchy we need to fear in America, and whose meaning the public-school teachers need to comprehend.

It was indeed an invaluable public service which the teachers of Chicago rendered when they established in the courts, and in the minds of the people, the fact that thru the connivance of public officials five public-utility corporations are enabled to rob Chicago of ten million dollars annually thru the free gift to these corporations of the use of the public streets. Think what that means: the second city in the Union compelled to pay to five corporations, her own creatures, an annual tribute of ten million dollars; more than the combined cost of maintaining the public schools and the public library—at the same time her board of education closing the schools, cutting the teachers'

salaries, increasing the number of children in each room, and otherwise crippling the service for want of money!

America's motto once was, "Millions for defense, but not one cent for tribute," and we teachers may continue to teach that it is still our motto; but the children will learn, in spite of our teaching, that "Millions for tribute and not one cent for defense" is nearer the truth.

The significant thing in the tax crusade of the Chicago teachers was not the disclosing of these humiliating facts, nor the forcing of the corporations to return to the public treasury some of their stolen millions; it was that the public school, thru the organized effort of the teachers, was the agency which brought these conditions to the attention of the public and showed how to apply the remedy.

Nowhere in the United States today does the public school, as a branch of the public service, receive from the public either the moral or financial support needed to enable it properly to perform its imporant function in the social organism. The conditions which are militating most strongly against efficient teaching, and which existing organizations of the kind under discussion here are directing their energies toward changing, briefly stated are the following:

1. Greatly increased cost of living, together with constant demands for higher standards of scholarship and professional attainments and culture, to be met with practically stationary and wholly inadequate teachers' salaries.

2. Insecurity of tenure of office and lack of provision for old age.

3. Overwork in overcrowded schoolrooms, exhausting both mind and body.

4. And, lastly, lack of recognition of the teacher as an educator in the school system, due to the increased tendency toward "factoryizing education," making the teacher an automaton, a mere factory hand, whose duty it is to carry out mechanically and unquestioningly the ideas and orders of those clothed with the authority of position, and who may or may not know the needs of the children or how to minister to them.

The individuality of the teacher and her power of initiative are thus destroyed, and the result is courses of study, regulations, and equipment which the teachers have had no voice in selecting, which often have no relation to the children's needs, and which prove a hindrance instead of a help in teaching.

Dr. John Dewey, of the University of Chicago, in the *Elementary School Teacher* for December, 1903, says:

As to the teacher: If there is a single public-school system in the United States where there is official and constitutional provision made for submitting questions of methods of discipline and teaching, and the questions of the curriculum, text-books, etc., to the discussion of those actually engaged in the work of teaching, that fact has escaped my notice. Indeed, the opposite situation is so common that it seems, as a rule, to be absolutely taken for granted as the normal and final condition of affairs. The number of persons to whom any other course has occurred as desirable, or even possible—to say nothing of necessary—is apparently very limited. But until the public-school system is organized in such a way that every teacher has some regular and representative way in which he or she can register judgment upon matters of educational importance, with the assurance that this judgment will somehow affect the school system, the assertion that the present system is not, from the internal standpoint, democratic seems to be justified. Either we come here upon

some fixed and inherent limitation of the democratic principle, or else we find in this fact an obvious discrepancy between the conduct of the school and the conduct of social life—a discrepancy so great as to demand immediate and persistent effort at reform.

A few days ago Professor George F. James, dean of pedagogy of the State University of Minnesota, said to an audience of St. Paul teachers:

> One hundred thousand teachers will this year quit an occupation which does not yield them a living wage. Scores and hundreds of schools are this day closed in the most prosperous sections of this country because the bare pittance offered will not attract teachers of any kind.

Professor James further maintained that school-teachers are not only underpaid, but that they are paid much less proportionately than they received eight years ago.

It is necessary that the public understand the effect which teaching under these conditions is having upon the education of the children.

In reacting unfavorably upon the public school, these wrong conditions affect the child, the parent, and the teacher; but the teacher is so placed that she is the one first to feel the disadvantage: she is held responsible by the child, by the parent, by the authorities, by society, and by herself because of her own ideals, for duties in the performance of which she is continually hampered. The dissatisfaction and restlessness among teachers are due to the growing consciousness that causes outside of themselves and beyond their control are making their work more difficult. Some of these causes of irritation are inherent in the school system. Such proceed from the failure of the system on the educational and administrative side to adapt itself to the growing ideals of education and the demand for rational methods of realizing them. These inherent causes of trouble include the limitations of the teachers themselves and the failure of the system either to remedy these deficiencies or to remove the deficient.

Where friction is minimized by enlightened supervision and administration, the pressure of outside causes is less keenly felt. But where the system is so administered that inherent weaknesses and outside causes combine and reinforce each other to produce dissatisfaction, the double pressure increases the irritation, and correspondingly hastens the time when sheer necessity impels the teachers to seek a remedy or leave the profession.

The first and crudest form of expression that dissatisfaction with these conditions takes is the reaction against the nearest and most obvious cause of irritation—unsatisfactory supervision and administration, which are later recognized as effects rather than causes. The last causes to be assigned are the real ones, and only when every individual effort to better conditions has failed does the thought of combined effort for mutual aid—in other words, organized effort—suggest itself.

And yet organization is the method of all intelligently directed effort.

Within the last decade in a few cities of the United States organization has been effected among those on whom devolves the responsibility of applying

scientific principles to the actual work with children in the school-room, the purpose of such organization being to secure conditions under which rational teaching may become possible.

Such organization is at once the effect and the cause of a broadening of the intelligence and the educational outlook of the teachers, for to such organization they must take not only a reading acquaintance with the best in educational theory and practice, but a practical knowledge of what constitutes scientific teaching. Nor is this all, tho it may suffice for the professional equipment of those whose duties are merely supervisory. The class-room teachers in addition to this must have the ability and skill, given fair conditions, to do scientific teaching. More than this, they must know the conditions under which scientific teaching is possible, must know when and in what respects such conditions are lacking; and then, most difficult of all, because it includes all these and much more, they must know how to reach the public with accurate information concerning the conditions under which teaching is done and their effects on the work of the school.

Such are the prerequisites of teachers who would successfully engage in the work of securing better conditions for themselves, and for the schools, thru organization.

A word, before closing, on the relations of the public-school teachers and the public schools to the labor unions. As the professional organization furnishes the motive and ideal which shall determine the character and methods of the organized effort of teachers to secure better conditions for teaching, so is it the province of the educational agencies in a democracy to furnish the motive and ideal which shall determine the character and methods of the organization of its members for self-protection.

There is no possible conflict between the good of society and the good of its members, of which the industrial workers are the vast majority. The organization of these workers for mutual aid has shortened the hours of labor, raised and equalized the wages of men and women, and taken the children from the factories and workshops. These humanitarian achievements of the labor unions—and many others which space forbids enumerating—in raising the standard of living of the poorest and weakest members of society, are a service to society which for its own welfare it must recognize. More than this, by intelligent comprehension of the limitations of the labor unions and the causes of these limitations, by just, judicious, and helpful criticism and co-operation, society must aid them to feel the inspiration of higher ideals, and to find the better means to realize these ideals.

If there is one institution on which the responsibility to perform this service rests most heavily, it is the public school. If there is one body of public servants of whom the public has a right to expect the mental and moral equipment to face the labor question, and other issues vitally affecting the welfare of society and urgently pressing for a rational and scientific solution, it is the public-school teachers, whose special contribution to society is their own power

to think, the moral courage to follow their convictions, and the training of citizens to think and to express thought in free and intelligent action.

The narrow conception of education which makes the mechanics of reading, writing, and arithmetic, and other subjects, the end and aim of the schools, instead of a means to an end—which mistakes the accidental and incidental for the essential—produces the unthinking, mechanical mind in teacher and pupil, and prevents the public school as an institution, and the public-school teachers as a body, from becoming conscious of their relation to society and its problems, and from meeting their responsibilities. On the other hand, that teaching which is most scientific and rational gives the highest degree of power to think and to select the most intelligent means of expressing thought in every field of activity. The ideals and methods of the labor unions are in a measure a test of the efficiency of the schools and other educational agencies.

How shall the public school and the industrial workers, in their struggle to secure the rights of humanity thru a more just and equitable distribution of the products of their labor, meet their mutual responsibility to each other and to society?

Whether the work of co-ordinating these two great educational agencies, manual and mental labor, with each other and with the social organism, shall be accomplished thru the affiliation of the organizations of brain and manual workers is a mere matter of detail and method to be decided by the exigencies in each case. The essential thing is that the public-school teachers recognize the fact that their struggle to maintain the efficiency of the schools thru better conditions for themselves is a part of the same great struggle which the manual workers—often misunderstood and unaided—have been making for humanity thru their efforts to secure living conditions for themselves and their children; and that back of the unfavorable conditions of both is a common cause.

Two ideals are struggling for supremacy in American life today: one the industrial ideal, dominating thru the supremacy of commercialism, which subordinates the worker to the product and the machine; the other, the ideal of democracy, the ideal of the educators, which places humanity above all machines, and demands that all activity shall be the expression of life. If this ideal of the educators cannot be carried over into the industrial field, then the ideal of industrialism will be carried over into the school. Those two ideals can no more continue to exist in American life than our nation could have continued half slave and half free. If the school cannot bring joy to the work of the world, the joy must go out of its own life, and work in the school as in the factory will become drudgery.

Viewed in this light, the duty and responsibility of the educators in the solution of the industrial question is one which must thrill and fascinate while it awes, for the very depth of the significance of life is shut up in this question. But the first requisite is to put aside all prejudice, all preconceived notions, all misinformation and half-information, and to take to this question what the educators have long recognized must be taken to scientific investigation

in other fields. There may have been justification for failure to do this in the past, but we cannot face the responsibility of continued failure and maintain our title as thinkers and educators. When men organize and go out to kill, they go surrounded by pomp, display, and pageantry, under the inspiration of music and with the admiration of the throng. Not so the army of industrial toilers who have been fighting humanity's battles, unhonored and unsung.

It will be well indeed if the teachers have the courage of their convictions and face all that the labor unions have faced with the same courage and perseverance.

Today, teachers of America, we stand at the parting of the ways. Democracy is not on trial, but America is.

LIMITATIONS OF THE SUPERINTENDENTS' AUTHORITY AND OF THE TEACHER'S INDEPENDENCE

AARON GOVE, SUPERINTENDENT OF SCHOOLS, DENVER, COLO.

In school administration a definite partition, positive and evident, must lie between the functions of the legislative and of the executive departments.

While the superintendent of schools is permitted, and it is his duty, to participate in the councils of the legislative department, his evident duty lies in the execution of the plans which have been made as well by others as by himself. That part of the executive department of a school system which relates to the teaching of pupils is vested primarily in the superintendent; the responsibility is his, and theoretically the knowledge of the best method lies with him. He obtains that knowledge not only by personal investigation, study, and observation, but quite as much by contact and by the advice of his associates. No man undertakes alone to frame a course of study, but seeks counsel, and urges his associates in all grades and departments to give to him the sum of their knowledges and experiences obtained in the active performance of their duties.

The limitations of the superintendent's authority are, or ought to be, definitely stated in the formal rules and regulations of the board of education. An inspection of the many rules now in print, from all sorts and conditions of school corporations, demonstrates a notable unity of legislation in this respect. While the appellate privilege lies to the board in the instance of all cases concerning the adjustment of difficulties between schools and home, or teachers and principals, it is the superintendent's duty to decide so far as to prevent, if possible, the necessity for an appeal to the legislative body.

The independence of a teacher is limited to that part of his official life which depends upon ethical relations. No independence can be, with regard to the performance of an assigned duty. It is comparable to the turning out of work by an industrial establishment, the performance of a task assigned by the chief of police of a city, or communicated to a soldier while on duty. While a polite remonstrance must always be the privilege of a teacher, it is

understood that the decision lies only with that authority which is responsible for the accomplishment of the assignment.

The personal characteristics of the superintendent and his method of dealing with subordinates largely modify the character of the output. One has a right to conclude that only polite conduct shall be, but what is polite on the part of one authority is despotic on the part of another. The autocracy of the office of the superintendent of a public-school system is necessary for the accomplishment of his purposes, but that despotism can be wielded with a gloved hand. A dangerous tendency exists toward usurpation by teachers, thru organization, of powers which should be retained by the superintendent. An apparently growing feeling seems to exist—in truth it does exist, especially in one of the large cities of the country—that the public-school system should be a democratic institution, and that the body of teachers constitute the democratic government. This is a false conception of true democracy. The truth is that the boards of education are the representative bodies of the democracy —the people—for whom they are making laws, and to whom they are responsible for their acts. A democracy of teachers for the purpose of controlling authoritatively the many hundred lines of activity connected with the administration of schools is as fatal to accomplishment as would be that of the patrolmen of the police department of a great city to organize and give directions, according to their own will, to the department in which they are placing their services.

It seems to be along the line of action whereby, in the industrial interests of our country, trades unions are so active, and either helpful or harmful according to the temper of the organizations and the wisdom of the chiefs of these organizations. Concerning neither administrative nor educational policies can the teaching body be intrusted with final decision.

People can be found who believe and speak and write that, as trades unions, in their authority over the membership, modify the kind of work put out, the amount of work done, saying to its members only so much effort shall be made each day, controlling the organization as to the manner of the work and the amount of wages paid, the number and kind of appointments, the tenure of position; so ought the teachers of a school district similarly to organize and act.

Is it possible that the members of the National Educational Association, or a respectable minority, believe that a similar organization will be helpful to the great interests for which they are spending their lives? Can it be possible that there are in the ranks of our profession—four hundred thousand of us today—men and women who are willing to be bound by rules and regulations and promises whereby they shall officially determine upon the merits one of the other; that no teacher can be employed unless he belongs to the organization; that he shall have just the wages that the organization directs; and that, when necessary, he shall stop the machinery of public education in return for some real or fancied grievance?

The people are represented in the administration of a school system by a body of men and women whom they elect for that purpose. In that body rests necessarily all effective power and direction. That body selects an officer whose sole business is to execute the plans prepared by the people thru their representatives, the board of education. The instruments used for that execution, namely the teachers, are furnished to this executive officer, who is instructed to use them in the performance of his duties, he having the knowledge and skill and ability to select given instruments for given purposes in order to obtain the results.

An organization of teachers for legislative purposes or for directive purposes is comparable to an organization on the line of the younger part of a large family for the control of the parents' efforts. I know such conditions do sometimes exist in domestic affairs. It is not rare to find the sons and daughters directing the affairs of the household in opposition to the opinion of the parents. The fact of the existence of this condition occasionally, however, will scarcely justify us in commending it.

On the other hand, one cannot forget that the amount of technical ability and intelligence embodied in the teachers of a city school system is of a scope far exceeding that of any one or group of ones. This effective knowledge must be used; the schools will never be at their best while their policy represents only executive power, or even while they represent the power of the legislative and executive department. But this counsel, this giving of advice which is essential, is not to be given in a formal way thru the orders and directions and laws and rules of an organized body like that of a trades union; but, on the other hand, it is to be given as the good daughter talks with the father and mother; as the kindly son participates in the counsels of the home. Practically it is to be given by frequent convocations, experience meetings, advice, the result of personal study and investigation; not by dictatorial law. The dictation must come from the other end.

The superintendent of schools is given a route along which to travel. At the various stations he finds his associates doing an allotted duty. His limitations require him to demand the result; that is to say, the ultimate performance of the task. He cannot and must not presume to interfere with the manner of that performance; he asks that when he reaches the end of the route his inspection shall have demonstrated that all the machinery is working, and expects to discover that the methods of that work have been materially modified according to the instrumentalities of the performance.

No two minds approach a given subject along the same trail, altho both reach the objective. No instructors train their charges in identical ways; and yet the results of that training are similar; never, however, identical.

The personal characteristics of the superintendent long associated with a school system are bound to be largely infused, injected, into that system; and they ought to be. In the same way the positive characteristics of the teacher are bound to be infused into the little character which he has in his training;

and it ought to be; for it is because of the excellencies of these characteristics that superintendent and teachers are engaged for the work.

It is wicked to work at cross-purposes. Both superintendent and teacher have abundant limitations. Complete confidence is an essential; contest, conflict, suspicion, and strife are fatal.

The teacher's independence, as mentioned in the title of this paper, is the independence of the free American citizen who has entered upon the performance of a duty definitely and positively outlined at the outset. The purpose is defined at the commencement; the demand is that it be accomplished. The teacher has independence and can have independence like that of the man in the shoe factory who is told tomorrow morning to make a pair of No. 6 boots. The independence of that workman consists in the fact that he can sew four stitches in a minute or forty, can work rapidly or slowly, as he chooses or as he is able; but his dependence is that the boots must be made and made exactly, according to the order both in size and quality and execution.

Under the present typical school organizations of the country, the limitations of the superintendent's authority are necessarily loosely defined. A system has grown up of superintendents of schools with a corps of assistant superintendents of schools. Not only the title of the office of "assistant superintendent" is unfortunate, but it is quite out of place for an efficient organization. The better plan is that but one superintendent of any enterprise be appointed to office and intrusted with its duties. No one official can do all the work which falls upon the duties of his office; he must have assistance. In older and well-organized institutions but one head exists. As many men and women as are needed should be appointed and nominated school inspectors. A great part of the actual labor connected with the superintendent's office is in the department of inspection. The superintendent of large interests cannot be also an effective inspecting officer. He must call about him a corps of inspectors whose duties should be to inspect and to report.

A notable illustration of what I am trying to say is in the War Department of the nation. Those who are fairly familiar with that department of our government understand how emphatic and essential is regarded the inspection of garrisons, posts, divisions, battalions, and regiments. The commanding officer at headquarters keeps in touch with all stations in his department by occasional personal inspection, but frequent and detailed inspection is necessary, and is performed by officers of the inspector-general's department.

The time never was nor can be when a superintendent of schools can efficiently perform his duties from his desk; but in every school district comes the time when, owing to the increasing size, hours at his desk are increased, and the superintendent's opportunities to inspect grow less. He substitutes for his original personal inspection that of a lieutenant sent out. While we have grown to call this office that of "assistant superintendent," I suggest that that name be omitted hereafter in the titles of school officials, and that one responsible directive power called the superintendent's office be, as it is sometimes

now, practically the ultimatum in school affairs. Some local and political embarrassments would not exist as they do now, were the office of assistant superintendent unknown.

Then, again, the most valuable power, that which deserves and must receive more compensation than any other, is the directive power—the superintendent—whether it be of a transportation company, or of a great industrial enterprise, or of schools.

The expense of the office can be reduced by appointing school inspectors—young men, growing men, men in training for the office of superintendent; but who can afford, while learning that business and growing up, to receive a part of their remuneration in the value of the training.

The executive department of a school system of thirty thousand pupils would be ideal with one superintendent and four school inspectors who shall spend their entire time, as does the inspecting officer of the army, in reviewing and examining in detail every part of the enterprise and reporting promptly and often, in a very careful way, what he finds; and in recommending, if the superintendent asks for recommendation; if not, avoiding comment altogether.

Such an organization would remove too, beyond cavil, any possible envies, jealousies, or discords that occasionally rise to the surface in some of our cities.

We realize fully the general tendency of our country to organize men and women for the purpose of self-defense, self-protection, and frequently for offensive operation. In general terms, we call it the conflict between labor and capital; in particular terms, we name on the one side "trusts," on the other "unions." So general is this agitation, this inclination, this tendency, that, as has been intimated, it has reached the teachers of the country; and in no pessimistic humor I am compelled to view this tendency with alarm. It is fraught with danger. Some effort has been made in this paper to condemn teachers' trade unions. I am unable to approach this subject on a common plane of action; if it be industrial, it concerns artisans laboring under working contracts; if it be spiritual, it concerns the training of intellects and souls in the love of patriotism and devotion to family and country, as well as for immortal life. If sordidness of our personal life, whereby most effort is gauged by the dollar to be returned for the effort, who can feel secure for the future of our nation? The schools themselves are modifying the courses of study, while the character of the teacher and the purpose intended are those which shall bring the greatest financial returns. The boys and girls in the high school are surrounded by the environment of an idealism which is represented by the accumulation of great fortunes. An organization of teachers is intended to increase rather than diminish that tendency.

I place the subject before you, and would that I could portray as upon canvas the inevitable outcome, should the school world descend to a lower plane of social life, where the measurements of life's work cease to be honor, integrity, patriotism, and love, and become that which represents acquisitive-

ness, selfishness, and financial success at the expense of the neighbor; striving chiefly for a superiority of wealth over everybody, regardless of the truths of ideal manhood.

ADDRESSES AT THE VESPER MEETINGS

ART EXHIBITS IN THE EXPOSITION

HALSEY C. IVES, CHIEF OF THE DEPARTMENT OF ART, LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

[STENOGRAPHIC REPORT]

Mr. Chairman, Ladies and Gentlemen:

I am glad to have the opportunity this afternoon to meet my co-workers, and to have the pleasure of speaking of the exhibits which have been brought together in the Art Building from twenty-six countries of the world. We have installed in the various national sections a total of not less than ten thousand exhibits. Think, if you please, of the energy, the feeling, the degree of inspiration, drawn upon in various parts of the world; the hopes, the fears, the joys, that come of creation; think of all these things, represented in these ten thousand exhibits. Austin Dobson paraphrases the lines of Gautier as follows:

> All passes. Art alone,
> Enduring, stays with us;
> The bust outlasts the throne;
> The coin, Tiberius.

So these thousands of works are giving to us, in these exhibits, expressions which will outlast thrones and the people whose feeling has caused their creation. In studying them, I think, as educators, if we are to get the good of it, we should take the view that each section exemplifies fully that which the people who have sent these works to us are, at their best.

In working with the various government officials and individual artists of influence in the countries of the world, in the interests of this Exposition, the one thing I dwelt upon more than any other was that, in forming their juries, their committees of selection, who were to make up this collection, this idea should be kept constantly in mind: they should select objects, not representing what they believed *we* cared for, but those which, in the consensus of opinion of the most intelligent people of *their* country, represented the best of *their* art, produced during the last eleven years. So I believe you may go to these various sections and study them with the belief that you are getting, thru the art of these countries, an expression of what their best people believe they *are* in art. And in making this comparative study I take it that you will find it has great educational value.

As I look about the audience, I recognize the face of one who said to me

only a few days ago: "I hope no teacher, after spending time in this Exposition, will ever be guilty of saying again: 'I don't know much of art, but I do know what pleases me.'" I trust that the hope of my friend will be verified. Think, if you will, of the impression made by a teacher who would say to friends, or to students: "I don't know much about literature, but I do know what pleases me." I see no difference between the two. The one, art, is the expression of the great thought and feeling of the people quite as much as the other, literature.

In the four structures devoted to the art department of the Exposition are installed this vast number of exhibits which represent a high average of the art-producing people of the world. Included are the United States, and twenty foreign countries represented by government commissions or national committees: France, Germany, Great Britain, Holland, Belgium, Russia, Italy, Austria, Japan, Mexico, Canada, Hungary, Sweden, Cuba, Brazil, Argentina, Bulgaria, China, Peru, and Portugal. In addition to these countries, the art works of Denmark, Norway, Iceland, China, Peru, and Ceylon are represented in a gallery specially prepared for the purpose, and designated as the "International Section." The central building, which I like to think will become a permanent art museum, dedicated for all time to the people of this city and the country tributary to it, contains the exhibits of the United States, nearly four thousand in number. In the separate pavilions on the east and west, and in the International Sculpture Court on the south, are installed the contributions of these twenty-five foreign countries. There are also galleries and exhibit spaces provided in several national pavilions, for the installation of exhibits for which it was found impossible to grant space in the art building.

The striking feature of the organization of the art department is the incorporation in it of the so-called industrial art, thus obliterating the line which has hitherto separated the fine arts, so called, from the other original objects of art-workmanship. Under the broader classification of art work, as we view it, whether on canvas, marble, plaster, wood, metal, glass, porcelain, or textile, or other material, in which the artist-producer has worked with conviction and knowledge, he is recognized as equally deserving of respect in proportion to the worth of his work from the standpoint of technique and inspiration. To carry out this idea, a special group entitled "applied arts" was added, with spacious galleries arranged for their display. In this group is exhibited art work in glass, earthenware, metal, leather, wood, and textiles, as well as examples of artistic bookbinding and printing. Thus for the first time in the history of international expositions in this country, American craftsmen have taken full advantage of the broader classification which includes all forms of artistic representation in which individual artists, or groups of artists working co-operatively, have expressed their thoughts in whatever medium they may have selected.

At the time of the Chicago Exposition the arts-and-crafts movement, as it

is called, had not made itself sufficiently felt to provide workers who could take advantage of a similar classification. But the last ten years have seen a remarkable development of interest and activity in the revival of the handicrafts, and the Exposition of 1904 demonstrates that the impulse for artistic expression in the various forms of art work is a factor likely to have no small part in our national development. Examples of the best work of modern craftsmen from abroad are shown in various foreign sections, offering a valuable opportunity for comparative study in this interesting branch of art.

A word or two might be added here in explaining still further what is meant by this, and what we hope to gain by holding to this classification. As an illustration—one which I used on a former occasion before your Association, at its meeting in Denver: Can you conceive that Raphael, the great master, was less an artist when he was engaged in producing designs or patterns for the Flemish carpet-weavers, than he was when he designed and created with his brush the Sistine Madonna? These patterns which he designed for the Flemish carpet-weavers are now held in Kensington Museum as priceless treasures. They are called the cartoons of Raphael. You know where the reproductions are, the interpretations of them by the Flemish carpet-weavers; the tapestry is now used as hangings in the Vatican. Did Raphael become an industrial worker in the one case, or did he not? Was he the fine artist when he created the Sistine Madonna? And when he used the same principles of line and composition of color in creating these great religious works, the cartoons, did he become an industrial worker? Was he not the same great master? So, should not we free ourselves from certain laws which were inflicted upon the world of art about one hundred and fifty years ago by art politicians, and recognize the people who work with conviction, inspiration, technical knowledge, and skill, whether their feeling is expressed in a bit of glass, or on canvas, or in porcelain, or on iron, if you will, or in sculpture?

And right here I wish to speak of a thing that lies very near the heart of every man who believes in art for Americans; in universal art for people who are wise enough to recognize art at its full value, whether the art is by Americans or by citizens of other countries. In this connection, there is a certain work that may be taken up legitimately by your Association. I do not hesitate to appeal to any body of intelligent workers, no matter what their callings may be, to use their influence in correcting certain legislative abuses which prevail in our country at this time. I allude to the unwise tariff regulations now in force. I venture to use an illustration that I used before another great body of educators, the Federated Clubs of America, at its last meeting, about three weeks ago, in this hall. St. Louis is famed for a certain product. Statistics show that we produce in St. Louis and the territory adjacent to it not less than two-thirds of the entire output of sewer-pipe. I see a smile pass over many faces. I fancy you are wondering what this has to do with art. Only this: Thru the wisdom (with a large interrogation point after it) of our national legislators the infant industry that thrives here, and in Ohio and Indiana, is

protected, in this way: A friend of mine in Holland, seeking to express his feeling and knowledge in a certain form, to interpret his point of view of the people of his country in character sketches, began to model their forms in common clay—exactly the material which is used in making crude forms of pottery, of salt-glazed ware, crocks and jugs, and certain architectural details of buildings, and sewer-pipe. The value of each piece of clay is, possibly, a hundreth part of a cent; but he puts his genius into it, he creates an exquisitely artistic figurine. It is an exquisite type of art work; it is unique; it bears the touch of the artist. It, like the sewer-pipe, is put into a furnace; it is burned, exactly as the jar or jug; and when it gets the proper degree of heat, salt is thrown over it, and it is glazed, so that a hard, vitrified surface results. The moment he brings to this country this article of a hundreth part of a cent of value in crude material, and perhaps twenty-five dollars in brains, with which he has enriched it, what does our law exact of you, and you, and you, if you desire to purchase it? The law says that, in order to protect the infant industry of sewer-pipe-making in Missouri, in Indiana, in Ohio, you and I must pay to the government 60 per cent. of the value of this hundreth part of a cent, plus the twenty-five dollars of genius and brains that has been put into it. If it were reproduced a hundredfold, this charge of 60 per cent. might with justice be placed upon every reproduction; but upon the original work by the artist no restraining tax should be placed. It seems to me that such a tax is wrong.

Another example: Take the iron that is wrought into such beautiful forms by skilled European artists. Five or six years ago I asked such an artist to take a bit of iron, giving me the exact cost of the iron in the market, the first remove from the crude material. He reported that six cents would represent its value. I asked him to make a design for me, and to put it in the hands of another skilled artist for execution. This artist produced an exquisite form in iron—a candlestick. I bring it to this country. It does not conflict in any way with work that is carried on here. We have not introduced that form of art in wrought iron; our people have not the artistic skill required to produce it. But our wise legislator interposes, saying that if you try to benefit yourselves or your neighbors by putting this work of art before them, you must pay, under the existing tariff, 45 per cent.

Now, I believe in protection; but I do not believe in "protection" that is going to interfere with educational work. They will say to you at once that, for educational purposes, art objects may be brought into our country free. True, they may be; but let me tell you what would happen, under that same regulation. If I send to one of the great galleries, or universities, or museums abroad, and ask my friend who is working there, one of the keepers, a curator, or a director, to have made for me a hundred representative objects which I wish to use in the university class lectures to illustrate the historical development of art, they are sent over, by parcel post or express. I receive a notice from the post-office of their arrival; but under this law I cannot get them without paying 35 per cent. duty, altho I prove that they are to be used in

educational work. If I bring over these same things with a stereopticon, asserting that I am going to stay six months and lecture, then take them out again, I shall be permitted to bring them in free under bond; but I cannot retain them for permanent use, under existing conditions, without paying this duty.

It seems to me that to correct such an anomolous state of affairs is a legitimate work to be taken up by such an organization as this. You have great influence in every section of the country; and I hope there is not one of you here so modest as to suppose for a moment that your opinion in regard to these matters is not worth more than that of the average legislator—the man you may help to send to Congress. I speak with knowledge. I served four years as a legislator, and have served thirty-two as a teacher; and my opinion, I know, is worth a great deal more as a teacher than it was as a legislator; and it is the influence of Ives as a teacher upon Ives as a legislator that causes me to speak to you on this subject as I do.

A word or two on the educational influence of these various sections. I said a few moments ago that you have in these exhibits an exposition of the character of the people that sent them. Are there any written words or productions, for example in Sweden, that express more forcibly than these pictures express what her people are? And, by the by, there is no collection of works, unless perhaps it may be in Japan and in Holland, that is more truly national in its expression than that of Sweden. These three, I should say, express as clearly national feeling as any in the art department. Of course, there are others that are quite strong in various directions. The most universal art, in its technical influence, is the French school. Another broad and national collection is that of Great Britian; but it is not as intense in its nationality as the three of which I have spoken—Holland, Sweden, and Japan.

In regard to our section: I like to wander about the galleries and hear the comments of visitors; the remarks of the intelligent, the indifferent, the ignorant. I get a great deal from it. I find this: People of intelligence, people who have traveled, those who have a knowledge of literature, people who are readers, teachers, often express in some sort of way the same idea—that in the American section there is no unity of expression. You have there, on the one side, an example of art which is as truly French as the picture near it is Dutch; or another which shows the strong influence of the German school; or, again, on which shows an independent expression—for example suggests the Newlyn school of workers, the secessionists, the German Independents, or the French Impressionists. All these things are exemplified in the works brought together in our own section; but the very things condemned as foreign are proof positive that we have a national art. We are French, German, English; we are Italians; we are Spaniards. We are a composite people; and we must, if we are honest, express just what we are—simply give expression to our feeling. There may be a Dutch strain working out in me, or in you there may be a strong Spanish or French strain. Ought it to be wondered at that when our artists and students go to the various art centers, or seek one of the independent groups of

workers, such as that in Glasgow, they put themselves in touch with the influence which is strong there? Is it to be wondered at, if it touches a harmonious chord in them? Is it strange that they should respond to it? They would not be honest if they did not. So the honest expression in our art today lies in just that fact: we are a mixed people; and our art, if it is honest, must be mixed. I am not disappointed in this. In it I see great hope for the future. We are far in advance of the position in which the Chicago Exposition found us, eleven years ago. And even there I observed that which I have found to be true here.

Even at this early stage in the present Exposition I have found that you may walk thru the French, German, or Italian section, hour after hour of any ordinary day, with great freedom; for in these sections you will find only the people who are versed in art, those who know the various schools of art, those who study the exhibits in a systematic way. The great mass of observers, intelligent, tho not versed in art, wander thru these various sections without stopping. Pass, however, into the United States section, and there you will find the galleries crowded. It is not because the people seek this section at once, of their own volition. They simply linger here because they feel a certain something which appeals to them: they are in harmony with that which they find upon the walls.

I take great encouragement from this. I can see that out of this conglomeration of influences we are working toward a complete expression in our art of that which we are as a people. I believe if you wander thru this great collection of works, and look at it without prejudice, going from one section to another and finally coming to your own, you will recognize the truth of my statement—that we are more nearly expressing a national feeling in our art than many have supposed. I believe firmly that out of all this will develop an American school; and that when it comes it will not be English, French, German, or Italian, but will take from all these such things as properly appeal to us, just as in making up the total of our people we have drawn from all these nationalities; and that out of this will come a universal art which will be truly American, as out of this collection of the people of all the world will come a universal people who will be truly American. I have faith in these influences; and I believe that, if you will study these various collections as educators, you may contribute more than any other class of workers in the United States toward the consummation of this end.

Now, before we separate, I wish to speak to you of what may be done in your schools. Possibly you may know it all better than I. All over the world are men who are ready to help schools in making representative collections showing the historical development of civilization thru art. I have in mind a town of six or seven thousand people in the northern part of this state, where a group of ladies, believing that they could do something for art education, formed a course of lectures. They invited lecturers. First they invited me to go there and lecture. I do not know whether they continued it or not after I got thru, but I do know that about all the tickets in the hands of the different

grades in their high school were sold. The total income from the efforts of each grade was to be used in the decoration of its room; and there was a sum of money realized from it considerable enough, I believe, to purchase a representative collection of reproductions which gives a fair idea of the historical development of art for, say, three centuries. This work was not done by the teachers; it was done by a group of ladies outside the school. I believe such a work can be done in almost any town of three thousand inhabitants; and I believe there are men and women scattered all over the country who are willing to help in such a work, and who will contribute their services to help you.

These art reproductions are photographic. There are several firms that publish them; there are a number publishing them in our own country. There are obtainable, fair copies of all the great masterpieces that are to be found in the European and, I am glad to be able to say now, also in the American museums.

Before closing, a word or two as to what further may be seen here. You have not only the contemporary collection of each of these twenty-six countries—of work done in the last ten years; but you have certain strong examples which were produced by men who lived in earlier years, those who produced work which influenced strongly the men working in the contemporary period. Then, for the loan collection, in our own section, we have persuaded public institutions and private owners to lend us many of their most famous pictures. Perhaps some of you are not aware that in the loan collection there are now installed some of the greatest art works of the world. One of the great Rembrandts is to be seen in that division. While the loan collection is installed in the United States section, none of the exhibits therein, with the exception of the Innesses, Vedders, and Whistlers, are American. Perhaps there are one or two others. Yes, Page, the American portrait painter, who died in the sixties—a great man, almost unrecognized as a master in his time, but whose work is now greatly valued in the world of art. While these are installed in the United States section, in every case, except those I have mentioned, they are foreign works which are lent to us with the proper American spirit, that all may have the benefit of that which their owners have.

SCULPTURE AND DECORATION AT THE EXPOSITION

GEORGE JULIAN ZOLNAY, SUPERINTENDENT OF THE DIVISION OF SCULPTURE, ART DEPARTMENT OF THE UNIVERSAL EXPOSITION, ST. LOUIS, MO.[1]

[STENOGRAPHIC REPORT]

Ladies and Gentlemen:

Under ordinary circumstances it would be a difficult matter to take another's place in a lecture, for there are very few cases in which two people's ideas coincide on the same subject sufficiently to enable them to substitute each other.

[1] Mr. Zolnay addressed the convention as substitute for Mr. Carl T. Bitter, director of sculpture of the Exposition, who was detained by illness.

In this case, however, it so happens that Mr. Bitter's views on this subject and mine are practically the same. Moreover, I have a thoughtful letter from Mr. Bitter, which I shall read to you, so that in reality you will get two lectures in one, which seems to be in perfect keeping with our strenuous lives, in which we get most things sublimated, from condensed milk to concentrated lectures on art.

Among other things, this is what Mr. Bitter writes:

> It occurs to me that, since the members of your audience come from all over the country, it might be of interest to explain the manifest difference between the sculpture that is seen at this Exposition and the works of art which one finds in the towns of the United States. I would remark that it seems almost incredible that so much sameness should prevail in the expression that the people have given to their reverential regard for their heroes. It seems that, with a few exceptions, these so-called soldier-monuments are the only expression sculpture has found in this country. All travelers note with ridicule that wherever they go they meet the same soldier standing upon the same leg, in the same attitude of parade rest, with part of his cloak thrown back over his left shoulder, and his arms resting on his rifle. If more life and animation has been desired by the monument committee, then the soldier is represented in the act of killing someone, either thrusting his bayonet at the invisible enemy, or just taking aim to shoot. In some singular cases even the act of dying is represented most faithfully. I wonder why the mind of the people likes to dwell upon and perpetuate a cruel side of the issues that have become matters of history. I find no reference to the beneficial results which the wars have brought about, I find no reference to the issues that were at stake. In fact, I find little, if any, thought in the monuments I have referred to, and which now form the principal representation of sculpture in America. If, consequently, you appeal to the teachers to spread among our younger generation a desire to look upon the events of history, not as a record of cruel deeds and bloody events, but to look for and find a bright side and fruitful consequences, I believe you will do a great deal of good.

This is a very beautiful sentiment expressed in a masterly way. I fully agree with Mr. Bitter that nothing could do more for art than the gradual spreading of a higher conception in the representation of the country's historical past.

My subject being limited to the out-of-door sculpture of this Exposition, I shall try to approach it from a somewhat different view-point from that of the general observer. I shall endeavor to analyze the work from the standpoint of its decorative qualities and its spiritual significance.

First of all, however, I must state that to condense the sculptor's work at the World's Fair into one hour's talk is an almost impossible task, for there has never been another occasion on which so much sculpture was produced in less than one year—and, what is most important, there has never been so much good sculpture in any one place—as decorates these buildings and educates the people who are fortunate enough to visit this great Exposition.

Better to appreciate the magnitude of what has been accomplished in this short space of time, it is well to remember that sculpture in this country dates back less than thirty years. In fact, the real turning-point of American sculpture can be reckoned from the Columbian Exposition at Chicago, eleven years ago. From that time on, sculpture has made its way by leaps and bounds,

and when the management of this Exposition decided to eclipse all former displays of statuary, there was an array of sculptors whose talent, ability, and experience insured success in advance.

In looking at the artist's work, we must remember two essential things:

First, in order thoroly to enjoy works of art it is best always to look for all that is beautiful, suggestive, and elevating in them, rather than to criticise and find fault. We must start out with the conviction that there is some good in every work, be it ever so obscure. Being the most intimate product of the human mind, soul, and heart, no matter how deficient it may be in its execution, it is bound to contain some good qualities; for good qualities are in every human being, and every artist, big or little, invariably puts into his work all the good that is in him. I do not mean that we must prostrate ourselves and have fits of ecstacy before every piece of work, just because it is labeled "work of art;" but I mean that by overlooking its faults or weaknesses we can enjoy whatever good there may be in it. It is always wiser to leave the task of criticising to the professional critic, or those whose livers are out of order, and who are finding fault on general principles.

As for knowing just what is good and what is not, there is only one safe rule to go by, and that is to say, "I like it," or "I don't like it." Every human being has a perfect right to like or to dislike a thing, irrespective of its merits; but we have no right to assert that this or that is bad, unless we are able to demonstrate and conclusively prove that it is bad. I am tempted to cite one of Carmen Sylva's clever aphorisms bearing on this very question. It runs somewhat like this: "Many people criticise in order to conceal their ignorance; they do not know that tolerance, leniency, and forbearance are the highest marks of culture." But, as I said, we all have a perfect right to like or to dislike things—and to say so.

Secondly, we must remember that in art there are two distinct modes of representation: the allegorical and the direct. Allegory is the time-honored mode of giving shape to our ideas, and until lately it was considered the only legitimate way of expression in sculpture. While allegory is the highest form of art, it is not the only one, as has been demonstrated by a large number of sculpture works at this Exposition. There have never been so many direct representations in sculpture as you have occasion to see here; and I do not hesitate to say that this breaking away from consecrated traditions is the beginning of a new school in sculpture, the American school, which sooner or later will occupy the front rank among the various schools of the world.

As you will see from the statues on the grounds and buildings, the allegorical representation is that in which an event, a thought, or a sentiment is expressed symbolically; while the direct representation is that in which the event, thought, or sentiment is expressed in a more tangible, matter-of-fact manner. It is this tangible, forcible manner in which a number of our sculptors have presented facts, with a daring, backed by the conviction that they were doing right, that will leave a deep impression on American sculpture and

the public mind. That American sculpture has made such rapid progress as to rank today with the best sculpture of the world there cannot be any doubt; neither can it be denied that within the last few years sculpture as a profession has progressed beyond American painting. I believe the cause can be ascertained very easily. For the last fifteen or twenty years the sculptors have had infinitely greater opportunities than have had the painters, so that it is quite natural that sculpture should have progressed more rapidly. What were these opportunities? To what is the more rapid progress of sculpture due? It is due in a very great measure to these expositions, which not only give the sculptor an opportunity to utilize his talent and ability to the best advantage, but also to foster the public taste for sculptural work, which is a very important factor in the development of art.

In the grading of the various branches of sculpture and painting, the representation of the human figure is unquestionably the highest form, being the most beautiful, the most instructive, and also by far the most difficult, art manifestation. It is in this highest form, the human figure, in which American painting is comparatively weak, that American sculpture is signally strongest. How can we account for this phenomenon? The explanation is found in the fact that there is an infinitely greater demand for the human figure in sculpture than there is in painting; and the chief demand is made by these great expositions, where, as in the case of this Exposition, $500,000 is expended for statuary. Such demands keep the sculptor constantly before the human figure, the most beautiful of God's masterpieces. This is why American sculpture has attained such eminence.

Under these circumstances, when we consider these expositions from the purely educational standpoint, which in fact is their chief mission, we must not forget that, aside from their enormous influence upon the general education of the people, they have raised and are raising American sculpture to a height which without them it might not have attained in a hundred years to come.

So when you gaze upon the forest of statues by which you are surrounded, remember that, when the history of this country will be written, a thousand years hence, and the historian shall make up the balance sheet of what we were and had at the beginning of the twentieth century, his most reliable document will be the word of our sculptors. Art, the crowning point of civilization, is always the most conclusive indicator of the degree of culture which a nation has reached at any given time; and sculpture being the most enduring of all human products, it is by its works that the coming generations will judge us.

In conclusion, I wish to say that we all owe a great debt of gratitude to those who are instrumental in bringing about great expositions, which are not only most powerful factors in our general education, but are aiding American sculpture to transmit to posterity a correct estimate of the degree of civilization which we have attained at the beginning of the twentieth century.

THE ARCHITECTURE OF THE EXPOSITION

GEORGE JULIAN ZOLNAY, SUPERINTENDENT OF THE DIVISION OF SCULPTURE, ART DEPARTMENT OF THE UNIVERSAL EXPOSITION, ST. LOUIS MO.[1]

[STENOGRAPHIC REPORT]

Great expositions are bound to leave decided marks in almost every direction, but it seems to me that of all the expressions of the human mind, intellect, and skill, architecture leaves a deeper furrow—a deeper mark—in the general development of a nation than any other manifestation.

We have to reach a high degree of contentment in civic life before we think of treating ourselves to works of art, such as paintings and sculpture; but one of the first impulses of man is to build so that he may be sheltered. As the human race advances, primitive building becomes architecture, and when expositions like this bring before the people the most magnificent examples of that art, it is natural that it should leave deep marks on the present as well as future generations.

To describe the style of architecture employed in the Exposition, I can think of no better phrase than the one used by Mr. Isaac Taylor, the director of works, when he said that the Exposition is of "Renaissance style with an American feeling." It was the best way of expressing it—Renaissance, with an American feeling; to which I might add, perhaps, "with American daring and independence."

Before going into details of the buildings and their various modifications of style, I shall try to analyze this much-abused, misused, and misunderstood word "Renaissance." We are confronted with this word all the time, and most of the time we do not know what to make of it. We all know that "Renaissance" means "revival," and that it is a French word which for some mysterious reason has never been fully translated. We also know that this revival took place in Italy in the fifteenth and sixteenth centuries, after a long period of artistic stagnation known as the dark centuries of the Middle Ages. This new era began with the discoveries and study of the remnants of Greek and Roman buildings and statues, and when the great minds with which these centuries were blessed so lavishly began to work in unison, a new period was created by the revival of the classic forms and spirit found in these excavated fragments. This is what Renaissance means—a revival of the classic period of the Greeks and Romans.

This Renaissance style spread from Italy to France, Spain, and the northern countries, where it found its peculiar interpretation and treatment suited to the various conditions of race and climate. Thus each country has its distinct Renaissance architecture, as easily recognized as modern Renaissance, which is practically the same in all countries except this—where it has an American feeling which is its latest development.

[1] Mr. Zolnay kindly consented to supply the place of William S. Eames, president of the American Institute of Architects, who was under appointment to address the convention on this subject, but who was unable on account of illness, to be present.

To go back and analyze the entire progress of architecture would be more than we could do tonight. All we can do is to consider the development of architecture in its great periods, beginning with the Greeks about 700 to 200 B. C., when they built their wonderful temples, which have never been equaled and perhaps never will be. The next period which we have to consider is that of the Romans, not only on account of the magnificence of their structures, but for the fact that they are the people who invented the arch. In Greek and all previous building no arch existed; the column supported the structure, which was one of the reasons, perhaps the principal reason, why the Greeks could not build such enormous edifices as the Romans did. So, if we consider this second period, we find that the Romans created a new era by inventing, or rather by developing, the arch and the vault, which play such an important rôle in architecture. The real inventors were the Etruscans, but their work was so primitive and crude that it remained for the Romans to develop it to such a high degree as to compel the world to give them the entire credit for the system.

Then we come to the period of the Middle Ages, in which the Romanesque and the Gothic styles were evolved, and which is one of the greatest periods of architecture. The difference between the Gothic and the classic styles is so radical that a few words will cover it. In the Greek buildings the principal lines were horizontal, supported by columns. It was the same with the Romans, except that arches, vaults, and domes were added, which made their structures much richer and larger. The Gothic principle of construction is entirely different; the principal lines are vertical; vaults and domes are pointed instead of round, the mathematical problems of building in segments being the fundamental basis of construction.

As we reach the fifteenth century, we find that the Gothic, or pointed, style has disappeared almost entirely, and that the new style, the Renaissance, or revival of classic times, is established.

From the sixteenth century to our days the Renaissance style has been subjected to various modifications, of which the so-called "Rococo" style was the most conspicuous. The Rococo style represents a time when the Renaissance entered upon a period of decadence, and while it contains many fine things, as a whole it is but an effeminate exaggeration of the Renaissance. I may add that this Rococo style has never taken foothold in this country, which speaks well for the soundness and virility of the American people.

As we look at the Exposition buildings and compare them with modern architecture, we see that this actually is Renaissance with an American feeling; we see that this architecture, even tho modified as we find it in almost every building, still retains the great principle of the Renaissance, which is strength and simplicity. Some of the buildings have been modified more than others, but every one conveys that great sense of solidity, even tho we know they are nothing but wood and plaster. It seems to have been the aim of all the architects of this great Exposition to secure simplicity, and to adhere to the beauty of classic outline and form as closely as practical requirements permitted.

To show you how much latitude the architects were given in the conception of their work, I will cite the Mining Building as an example of independent treatment. In its originality it stands out so strongly that the most casual visitor will remember it longer than any other building on the grounds. There are certain things on which architects and artists do not quite agree, such as the size of the statues on that building, which are decidedly too large; but, taken as a whole, as well as in detail of ornamentation, it is unquestionably very beautiful and the most original building on the grounds. In connection with what I have expressed about the outgrowth of Renaissance known as "Rococo," the two restaurant pavilions at either end of the colonnade of states—might serve as a good illustration, for they have a very decided "Rococo" touch. The lines are sinuous, and the entire feeling is one of delicacy, rather than strength, which evidently was the architect's intention, perfectly justified under the circumstances. He wanted to express the nature of the building: He wanted to express the fact that these two buildings were meant to be places of relaxation, places of joy. A restaurant ought to be a place of joy, which is not always so, but is so in this case, with the exception perhaps that it is a little expensive—the only thing against it.

In analizing the building in which we are [Festival Hall], you will at once perceive the analogy with some of the Roman edifices. As a basis, the architect has taken one of the Roman temples. You know that the first people to build round temples and domes were the Romans. They found the sewers of Rome, built by the Etruscans, from which they developed the dome and built their wonderful temples of Diana and the Pantheon. This is a modified copy of one of the Roman temples, as all domes are. There is no getting away from the fact that in architecture we have to take what has been transmitted to us from the Greeks, the Romans, or the Middle Ages, and modify it to suit our present conditions of life.

The building on the grounds which is least modified—with the least American feeling, but more classic—or rather more Roman in style than any other, is the Art Palace. The middle structure is almost a copy of the Baths of Diocletian, and, while the building in itself is very beautiful, the architect made one serious mistake in not adapting it to the purpose for which it was built: he designed a Roman bath, instead of a sculpture hall. If there is one thing absolutely necessary to statuary, it is concentrated light coming from above; and had this hall a proper skylight, instead of disfused light entering thru a dozen windows, it would probably be the most ideal sculpture hall in existence.

This question of light in connection with sculpture is of such importance that I shall try to elucidate it in a few words. Sculpture not having color to aid in its expression, top light, which is the only light that shows form to best advantage, becomes an absolute necessity. This is not a new theory, but on the contrary a very old one. It is a theory which the common ordinary peasant girls in Rome found out a long time ago. You know that in Rome there is the

Coliseum—an immense structure that held a hundred thousand people; this arena having very high walls and no roof, the light is concentrated from above. Now, what happened? The girls of Rome, whenever they were to see their best fellows, would always make the appointment in the Coliseum, because there they looked so much prettier than anywhere else. That is a fact, and if the photographers would realize this very simple truth, and use skylight instead of side lights, they would do a rushing business.

A little incident illustrating this actually happened in a Kentucky town. I went to a local photographer to have a picture made of a lady, whom he proceeded to pose in the conventional sidelight. Knowing what the result would be, I raised the curtains, making as near a top light as could be arranged in his studio. He took the photograph rather grudgingly, as if he did not think a man who knew nothing about photography should meddle. But when he looked at the negative on the following day, he thought the effect was beautiful, and he assured me that he had never before obtained such a good result. I assured him that I did not doubt it in the least, and explained to him the artistic advantages of the light from above. He afterward shut out all side lights, and some time ago he wrote, telling me that his business had doubled, as all the girls in town patronized him—for the simple reason that now he could make them look so much prettier in the photographs than they were in reality.

I believe I can explain this apparent phenomenon in a few words. By using top light on a face, be it sculpture or nature, somehow the good points are emphasized and defects toned down. The cavity of the eye is emphasized, made stronger, which gives to the eye greater expression. If the chin receives light from above and shadow from below, it makes the chin appear very much stronger. The oval of the face becomes rounder, etc. The result is that the photograph looks better than nature—as it ought.

I mean it when I say that a portrait whether sculpture, painting, or photograph—should look better than the individual. The reason is this: The animation of speech and the interest which the living word inspires, remove to a great extent whatever physical defects may be in the face. We often meet people who are downright ugly, but bright; they begin to talk, and instantly we seem to forget their ugliness. We get under the spell of their magnetism and the charm of their words as they reveal their soul, which the face may not do. As the vibrations of life hide deficiencies of form, and as our portrait cannot possess that vibration, we must equalize things by making such deficiencies as little evident as possible. In other words, when we make a portrait, we must represent the individual at his very best, we have to make a compromise between the physical shell and the soul which is in that individual. Of course, this we cannot expect from a photograph—that is the province of sculpture and painting; but we can expect the photographer at least to render the physical form to best advantage.

But to come back to my subject: Architecture, being a combination of

the beautiful and utilitarian, naturally plays a more conspicuous part in our lives than art pure and simple. With buildings we are confronted every hour of our lives, and their perfection ought to develop our sense of beauty to the same degree that beautiful sculpture and painting do. Last night, when I spoke about sculpture, I appealed to you, the educators of the country, saying that it depends upon you whether the sense of the beautiful will be developed in the coming generation or not. I had reference to sculpture, and I make the same plea today concerning architecture. It is for you to make it possible or impossible for the coming generation to build beautiful homes and beautiful public buildings. In these days of mechanical perfection, when we can buy the finest prints and photographs of the best examples of architecture, sculpture, and painting, if you bring these prints and photographs sympathetically to the notice of the children, they will gradually create that sense of appreciation for all that is beautiful, and a dislike for all that is not beautiful. There is only one way to distinguish between what is correct and beautiful and what is not; that is the constant seeing of beautiful things. It is not necessary that a person should be a trained artist, or a trained architect, to know the difference between a good building and a bad building, a good statue and a bad statue. All that is necessary is constantly to look upon beautiful works.

We are very much surprised when we go abroad—to Italy, for instance—to find that the Italians as a race have such a wonderful sense of discrimination and judgment in art matters. We wonder why it should be so. The explanation is very simple. Italy, like so many other countries in Europe, is full of beautiful things of the past. There is hardly a city without a number of beautiful buildings, such as churches and palaces. Statues and paintings may be seen everywhere the greater number of which had their origin in the wonderful period of the Renaissance when the finest works of art were produced. From early childhood they see these beautiful works, and by the time they have grown up the eye and mind are so used to the correct and beautiful way in which the animate and inanimate are portrayed that they repel anything not coming up to that standard.

Fifty years ago this plea could not have been made, because we would not have had the means to bring before the children these beautiful examples of the productions of the human mind, skill, and talent. But today, when we can buy photographs of the most beautiful examples of architecture, sculpture, and painting for a few cents a piece, we should not fail to bring these masterpieces before the children. If we consistently call their attention to the beauty of these great works, their sense of beauty will soon be as much developed as that of the inhabitants of European countries. Perhaps it will be developed even more, education being more general among all classes in this country. I do not mean that our standard of education is higher, for as yet the excellence of our colleges and universities cannot compare with those of Europe; but the education of the masses being more general here, the appreciation of the beautiful can soon reach greater proportions. Besides, American

children are quicker and more receptive; consequently, when you bring before them all these beautiful products of human skill and make them feel that what really is beautiful will contribute to make them happier, you have succeeded in your lofty task. The sense of beauty plays a very important rôle in our lives, for it raises us from the commonplace life and adds to the sum total of our happiness. Those who can appreciate the beautiful will not only be happier, but also better, than those who cannot.

In conclusion, I will say once more that it depends upon you, the educators of the country, whether the next and future generations will attain that climax of culture and civilization which is the goal of the human race.

DEPARTMENT OF SUPERINTENDENCE

ATLANTA MEETING, 1904

SECRETARY'S MINUTES

FIRST DAY

MORNING SESSION.—TUESDAY, FEBRUARY 23, 1904

The department met in the Grand Opera House, and was called to order at 9:30 o'clock A. M. by President Henry P. Emerson, superintendent of schools, Buffalo, N. Y. Prayer was offered by Rev. Theron Rice, D.D.

Hon. Joseph M. Terrell, governor of Georgia, extended a cordial welcome on behalf of the people of the state. The secretary read a letter of greeting from Hon. Hoke Smith, chairman of the Local Committee, who was prevented by ill health from being present. Hon. William B. Merritt, state school commissioner of Georgia, extended greetings on behalf of the teachers of the state.

A response on behalf of the department was made by President Emerson.

"Education at the Universal Exposition, 1904," was discussed as follows:

1. "From the View-Point of the Chief of the Department": Howard J. Rogers, chief of the Department of Education, St. Louis, Mo.

2. "Exhibit of the United States Bureau of Education": W T. Harris, United States Commissioner of Education, Washington, D. C.

3. "Some City Exhibits—Their Purpose and Plan": F. Louis Soldan, superintendent of schools, St. Louis, Mo.; Andrew W. Edson, associate superintendent of schools, New York city.

The president announced a reception to the department by the governor of Georgia at the executive mansion, and another by the Federation of Women's Clubs at the Capital City Club.

The department then adjourned until 2 o'clock P. M

AFTERNOON SESSION.—TUESDAY, FEBRUARY 23

At the opening of the session, W. F. Slaton, superintendent of schools, Atlanta, Ga., formally presented President Emerson with a gavel made by a little boy in the manual-training department of the Atlanta schools.

Two papers on "The Course of Study in Elementary and Secondary Schools" were read, the subtitles being as follows:

1. "The Superintendent's Influence on the Course of Study": William H. Elson, superintendent of schools, Grand Rapids, Mich.

2. "What Omissions Are Advisable in the Present Course of Study, and What Should Be the Basis for the Same?" Frank M. McMurry, Teachers College, Columbia University, New York city.

The discussion which followed was based chiefly on Mr. McMurry's paper, the speakers being E. H. Mark, superintendent of schools, Louisville, Ky.; J. H. Phillips, superintendent of schools, Birmingham, Ala.; Clinton S. Marsh, superintendent of schools, Auburn, N. Y.; Charles H. Keyes, superintendent of schools, Hartford, Conn.; Charles DeGarmo, Cornell University, Ithaca, N. Y.; Charles F. Carroll, superintendent of schools, Rochester, N. Y.; W. C. Martindale, superintendent of schools, Detroit, Mich.

F. D. Boynton, superintendent of schools, Ithaca, N. Y.; read a paper on "Athletics and Collateral Activities in Secondary Schools."

The president announced the following committees:

COMMITTEE ON NOMINATIONS

N. C. Dougherty, Peoria, Ill. William H. Maxwell, New York, N. Y.
W. H. Small, Providence, R. I. J. H. Phillips, Birmingham, Ala.
W. K. Fowler, Lincoln, Neb.

COMMITTEE ON RESOLUTIONS

J. W. Carr, Anderson, Ind. S. A. Mynders, Nashville, Tenn.
G. R. Glenn, Atlanta, Ga. C. G. Pearse, Omaha, Neb.
W. S. Parker, Boston, Mass.

EVENING SESSION.—TUESDAY, FEBRUARY 23

The evening was given to a "Symposium on the Educational Theories and Work of Herbert Spencer." Addresses were delivered by —

Hon. W. T. Harris, Commissioner of Education of the United States.

John W. Cook, President of the National Educational Association.

W. S. Sutton, professor of pedagogy, University of Texas, Austin, Tex.

A. E. Winship, editor of the *Journal of Education*, Boston, Mass.

M. Rose, professor of history and philosophy of education, University of Tennessee, Knoxville, Tenn.

SECOND DAY

MORNING SESSION.—WEDNESDAY, FEBRUARY 24

The department convened at 9:30 A. M. with President Emerson in the chair.

"Educational Principles for the South," was discussed by—

1. Charles W. Dabney, president of University of Tennessee, Knoxville, Tenn.

2. Charles D. McIver, president of State Normal and Industrial College, Greensboro, N. C.

Lawton B. Evans, superintendent of schools, Augusta, Ga., read a paper on "The Factory Child." This paper was discussed by W. H. Maxwell, superintendent of schools, of the city of New York, and N. C. Schaeffer, state superintendent of schools of Pennsylvania.

BUSINESS SESSION

The following report of the special committee appointed last year to report what action the department can wisely take to co-operate with the State Teachers' Associations of Illinois and Wisconsin to promote the cause of simplified spelling, was submitted by W. H. Elson, chairman of the committee.

To the Department of Superintendence of the National Educational Association:

Your committee finds the philological scholarship of the world in perfect accord with the experience of teachers as to the need and desirability of rationalizing our spelling. The memorials addressed to this department by the state Associations of Illinois, Wisconsin, and Minnesota propose a plan which, it seems to us, the National Educational Association can most wisely adopt with a view to permanently placing this movement under auspices which, while effectively fostering it, will as effectively guard it against all radical and unwise steps. Therefore we recommend the adoption of the following resolutions by a separate vote on each:

Resolved:

1. That the Department of Superintendence approves the first of the resolutions addressed to it by the State Teachers' Associations of Illinois, Wisconsin, and Minnesota, and respectfully requests the Board of Directors to appoint a permanent, self-perpetuating committee of thirty prominent citizens in different walks of life, particularly scholars and educators, and representing the various sections of the country, to lead the movement for simplifying our spelling, and to promote its interests in all ways which they find feasible and deem wise.

2. That the Department of Superintendence approves the second of the resolutions addressed to it by the state associations of Illinois, Wisconsin, and Minnesota, and respectfully requests the Committee on Inves-

tigations and Appropriations of the National Council to recommend to the Board of Directors, and the department respectfully asks said board to make, the appropriation of $2,000 per year for five years, for the use of the above committee, to be paid to it semiannually, each payment to equal such a total sum as shall have been paid for the same purpose, within the preceding six months, to the treasurer of said committee by any individuals, teachers' associations, or any organizations, the amount paid by the National Educational Association never to exceed $2,000 in any one year, and never to exceed the sum contributed from outside sources during the previous six months.

Respectfully submitted,

W. H. Elson, *Chairman*, superintendent of schools, Grand Rapids, Mich.
Edwin B. Cox, superintendent of schools, Xenia, O.
C. N. Kendall, superintendent of schools, Indianapolis, Ind.
F. T. Oldt, superintendent of schools, Dubuque, Iowa.
A. W. Rankin, state inspector of graded schools, Minneapolis, Minn.

The adoption of the report was opposed by John McDonald, of Kansas, and R. P. Halleck, of Kentucky; and was supported by W. H. Elson, of Michigan; E. O. Vaile, of Chicago, Ill.; Edwin B. Cox, of Ohio; and Thomas M. Balliett, of Springfield, Mass. A division of the question was called for. The first section was adopted by a vote of 116 to 28; the second, by a vote of 94 to 38.

The Committee on Nominations made the following report:

For *President*—E. G. Cooley, superintendent of schools, Chicago, Ill.
For *First Vice-President*—Lawton B. Evans, superintendent of schools, Augusta, Ga.
For *Second Vice-President*—J. W. Carr, superintendent of schools, Anderson, Ind.
For *Secretary*—Miss Evangeline E. Whitney, district superintendent of schools, New York city.

The nominees were elected by unanimous vote of the department.

The selection of a place of meeting for the next session was declared the next order of business. Milwaukee, Wis., and Columbus, Ohio, were proposed. The decision was made in favor of Milwaukee.

Carroll G. Pearse, superintendent of schools, Omaha, Neb., offered the following resolution:

Resolved, That in 1905 this department meet in Milwaukee, and each fourth year thereafter in such place as may be chosen by the department, or by its Executive Committee, if for any reason the department fails to make a choice.

That in 1906, and each second year thereafter, this department meet in Chicago.

That in 1907, and each fourth year thereafter, this department meet in Washington, D. C.

The department voted that the resolution be laid on the table.

The following motion, offered by J. M. Frost, of Michigan, was adopted:

That the special committee on the promotion of the cause of spelling reform be continued for one year, and that it be charged with the duty of presenting the action of this department to the Board of Directors of the National Educational Association, and to the committee in charge of investigations and appropriations.

E. O. Vaile, of Illinois, presented the following report which was adopted:

REPORT OF THE COMMITTEE OF CONFERENCE ON A UNIFORM SYSTEM OF KEY-NOTATION FOR INDICATING PRONUNCIATION

To the Department of Superintendence of the National Educational Association:

Your committee reports that the two other committees of conference contemplated in your resolutions were duly appointed, as follows:

COMMITTEE OF THE MODERN LANGUAGE ASSOCIATION

O. F. Emerson, professor of rhetoric and English philology, Western Reserve University.
Calvin Thomas, professor of Germanic languages, Columbia University.
George Hempl, professor of English philology and general linguistics, University of Michigan.
Edward S. Sheldon, professor of Romance languages, Harvard University.
C. G. Child, professor of English, University of Pennsylvania.

COMMITTEE OF THE AMERICAN PHILOLOGICAL ASSOCIATION

F. A. March, professor of the English language and of comparative philology, LaFayette College, Pennsylvania.

George Hempl, president of the Modern Language Association, and also of the American Philological Association.

Charles P. G. Scott, etymological editor of the *Century Dictionary*.

B. Perrin, professor of Greek, Yale University.

Benjamin Ide Wheeler, president of the University of California.

A joint meeting was held at Boston during the forty-third annual convention of the National Educationa Association. Professor Thomas was elected chairman of the joint committee. A subcommittee of three was appointed to prepare and submit for consideration in the full committee, during the session of the National Educational Association at St. Louis, a system of key-notation which will meet the needs of the lexicographer and philologist, but based upon a simple, phonetic alphabet thoroly available for the every-day use of the common people.

This subcommittee has been at work for some time, and its tentative alphabet is about ready to be submitted to the full committee.

After the alphabet has passed the committee, it will be sent out for the criticism or approval of all persons interested, to the end that the scheme having the largest amount of scholarly, expert indorsement may ultimately be submitted for adoption by each of the bodies represented in the joint committee, in the hope that their approval and recommendation of it will bring it into universal use in our dictionaries, spelling-books, and their manuals, as a substitute for our present various and confusing diacritical systems.

By a misunderstanding, the appropriation of $100 recommended by this department at its last meeting was not brought to the consideration of the Committee on Investigations and Appropriations. So far there has been very little expense. But some printing will have to be done, and a few new types may have to be cut, and other expenses incurred. Your committee asks that the department recommend to the proper authorities the appropriation of $100, or as such thereof as may be necessary to carry out the plans of the joint committee.

E. O. Vaile.
F. Louis Soldan.
Thomas M. Balliet.
Wm. R. Harper.
Aaron Gove.

EVENING SESSION

An address on "The Ethical Element in Education" was delivered by Walter B. Hill, chancellor of the University of Georgia, Athens, Ga.

THIRD DAY

MORNING SESSION.—Thursday, February 25

The topic, "School Administration and School Supervision" was discussed as follows:

1. "The Superintendent as a Man of Affairs": William H. Maxwell, superintendent of schools, New York city; Seymour A. Mynders, state superintendent of public instruction, Nashville, Tenn.
2. "The Assistant to the Superintendent—His Functions and Methods of Work": Miss Alice E. Reynolds, supervisor of schools, Hew Haven, Conn.
3. "The Management of Special Departments, Such as Manual Training": C. N. Kendall, superintendent of schools, Indianapolis, Ind. The discussion was led by E. E. Bass, superintendent of schools, Greenville, Miss.
4. "The Teacher—Beneficiary or Victim?" Miss Celestia S. Parrish, Athens Ga.

The following resolution was offered by Edward Rynearson, of Pittsburg, Pa.:

Resolved, That a committee of eleven be appointed, with Professor Halleck, of Louisville, Ky., as chairman, to formulate a code of regulation for the control of athletics in our secondary schools.

The resolution was referred to the committee on resolutions.

AFTERNOON SESSION

The topic, "Extension of Public School Privileges," was discussed in the following order:

1. "The organization of a System of Evening Schools": Thomas M. Balliet, superintendent of schools, Springfield, Mass.
2. "Adult Education as Illustrated by the Free Lecture System of New York City": Henry M. Leipziger, supervisor of lectures, Board of Education, New York city.
3. "University Extension for Teachers in Service": R. H. Halsey, president of State Normal School Oshkosh, Wis.
4. "Vacation Schools, Playgrounds, and Recreation Centers": Miss Evangeline E. Whitney, district superintendent of schools, New York city; B. E. Nelson, superintendent of schools, Lincoln, Ill.

The Committee on Resolutions returned the resolution offered by Edward Rynearson at the morning session without recommendation. On motion, the resolution was tabled.

The department unanimously adopted the report of the Committee on Resolutions, as follows:

REPORT OF COMMITTEE ON RESOLUTIONS

Resolved:

1. That we, as members of the Department of Superintendence, reaffirm our unswerving loyalty to our national system of state-conducted free public schools, consisting of elementary and high schools; and that we express our unqualified conviction that the demonstrated influence of these schools upon individual character and ideals, upon the quality of citizenship, and upon our country's industrial and commercial development amply warrants their continued liberal support, and their encouragement to greater efficiency, by every American citizen of whatever race or religion.

2. That we reaffirm our confidence in the other educational institutions of the state, such as normal schools, technical schools, and universities, wherein the pupils of the public schools may find the stimulus and incentive to seek higher educational opportunities and higher fields of usefulness, whereby, under the direction of the state, more efficient teachers may be trained for the public schools, as well as more effective citizens for the nation.

3. That we recognize the justice of the claims of efficient teachers for better salaries, to the end that they may prepare themselves still better for their work, and that they may make proper provision for the support of themselves and their families; and we pledge ourselves to assist them in every honorable way.

4. That we recognize in the skilled supervision and direction of teachers in rural as well as graded schools, a most potent agency for the improvement of teachers, and the organization and direction of educational thought in the community. We therefore urge upon school authorities and educational philanthropists the importance of adjusting salaries so as to insure in the office of county superintendent of schools high quality of leadership and educational skill.

5. That the greatest needs of the rural schools are better teachers, longer school terms, and better gradation. In order to obtain these, it is necessary to have more money to pay teachers, and better roads so as to facilitate the consolidation of rural schools. We therefore urge the necessity not only of increased state appropriations, but also of an adequate local tax, voted by the people for the schools, and we heartily approve of state and national efforts for the improvement of our country roads.

6. That we appreciate the loyal support of the American people to the public schools, as shown by their expressions of confidence, their zealous solicitude for the improvement of the schools, and the increased treasures that they voluntarily pay for their support. We pledge the people in return that, so far as it is within our power, the schools shall be economically administered, and that the children shall receive the best training of head, hand, and heart that it is possible for us and our colleagues to give them.

7. That it is desirable that the appropriate state authority in the different states shall be empowered by law to recognize teachers' certificates and diplomas of high grade issued or recognized by other states.

8. That we extend our sincere thanks to Governor Terrell, to the citizens of Atlanta and the state of Georgia, to the school officers and teachers of the city and the state, to the women's clubs, the Local Committee, and the press of this city, and to the Passenger Association, for the courtesies accorded the members of the department.

JOHN W. CARR, of Indiana, *Chairman.*
CARROLL G. PEARSE, of Nebraska.
GUSTAVUS R. GLENN, of Georgia.
WALTER S. PARKER, of Massachusetts.
SEYMOUR A. MYNDERS, of Tennessee.

The department then adjourned.

JOHN H. HINEMON, *Secretary.*

ROUND TABLES

ROUND TABLE OF STATE AND COUNTY SUPERINTENDENTS

N. C. SCHAEFFER, of Pennsylvania, *Chairman.*
W. L. STOCKWELL, of North Dakota, *Secretary.*

SECRETARY'S MINUTES

FIRST DAY.—TUESDAY, FEBRUARY 23, 1904

The Round Table of State and County Superintendents met at 4 o'clock P. M. in the assembly room of the Carnegie Library. In the absence of the leader, Superintendent Richard C. Barrett, of Iowa, Superintendent Schaeffer, of Pennsylvania, called the meeting to order. Superintendent W. L. Stockwell, of North Dakota, was appointed secretary.

The topic for discussion was: "The Recognition of Certificates and Diplomas Granted (*a*) by State and County Authorities, (*b*) by Schools of Education." Superintendent Schaeffer opened the discussion, followed by Dr. Sanford, of New York.

Superintendent L. E. Wolfe, of San Antonio, Tex., presented the principal paper which set forth the need of some plan of state reciprocity. Superintendent George W. Nash, of South Dakota, followed with a paper which supplemented the paper of Superintendent Wolfe. The discussion was continued by Commissioner L. D. Bonebrake, of Ohio; Ex-Commissioner G. R. Glenn, of Georgia; Superintendent W. T. Carrington, of Missouri; County Superintendent Shelton Phillips, of Florida; Dr. Henry R. Sanford, of New York, and Superintendent Arthur Lefevre, of Texas.

Superintendent Wolfe moved that it is the sense of this body that state certificating authorities should be authorized to indorse and validate certificates of a high degree issued by other states for use in their own states. The motion was seconded. Superintendents Bonebrake and Lefevre, and President John R. Kirk, of Missouri, discussed the motion. The motion was then carried.

Superintendent Wolfe also moved that the chair appoint a committee of state superintendents to confer with the state superintendents of the United States, looking to the carrying into effect of this resolution, and to report to the Department of Superintendence. The motion was seconded and carried.

Superintendent Schaeffer reserved the announcement of the committee until the session of Wednesday.

The meeting then adjourned until Wednesday at 2:30 o'clock P. M.

SECOND DAY.—Wednesday, February 24

The round table met persuant to adjournment, Superintendent Schaeffer, of Pennsylvania, presiding.

The chair announced the following Committee on the Indorsement of the Validating of Teachers' Certificates: President A. S. Draper, of Illinois; State Superintendents G. W Nash, of South Dakota; W. W. Stetson, of Maine; E. A. Jones, of Ohio; and W. T. Carrington, of Missouri.

Letters were read from Superintendent Skinner, of New York, and Mrs. Grenfell, of Colorado, and also a telegram from Superintendent Sheats, of Florida, giving reasons for non-attendance.

The topic under discussion was: "Increasing the Efficiency of Rural Schools." The first paper was presented by Superintendent Arthur Lefevre, of Texas. He discussed the topic briefly under the following heads: "Consolidation of Rural Schools," "Improvements in Course of Study and System of Grading," "Higher Standards in the Employment of Teachers," and "Expert Supervision."

The first topic was presented more fully by Superintendent J. Y. Joyner of North Carolina.

The second subtopic, "Improvements in Course of Study and System of Grading," was presented by Superintendent Delos Fall, of Michigan, in an exhaustive paper. Superintendent Cary, of Wisconsin, continued the discussion.

The third subtopic, "Higher Standards in the Employment of Teachers," was presented by President F. P. Venable, of the University of North Carolina. The discussion was continued by Professor P. P. Claxton, of the University of Tennessee, and Superintendent M. L. Brittain, of Fulton county, Georgia.

The last subtopic, "Expert Supervision," was discussed in a brief paper by Superintendent I. W. Hill, of Alabama; after which the round table adjourned without date.

W. L. Stockwell, *Secretary.*

ROUND TABLE OF CITY SUPERINTENDENTS

SECRETARY'S MINUTES

The Round Table of City Superintendents met at the Grand Opera House on Wednesday, February 24, at 2:40 o'clock P. M. Leader, Edwin G. Cooley, superintendent of schools, Chicago, Ill.; secretary, N. L. Bishop, superintendent of schools, Norwich, Conn.

Brief prefatory remarks were made by the leader, after which he introduced Samuel T. Dutton, of Teachers College, Columbia University, New York city, who read a paper upon "The Expediency of Importing Teachers of Proved Merit from without the City or Town."

Superintendent L. E. Wolfe, of San Antonio, Tex., opened the discussion, and was followed by Superintendent C. F. Carroll, of Rochester, N. Y.; Superintendent E. P. Cummings, of Grand Haven, Mich.; Superintendent Arthur D. Call, of Ansonia, Conn.; Superintendent J. V. Harris, of Key West, Fla.; and others.

Superintendent Walter H. Small, of Providence, R. I., being introduced by the leader, addressed the body upon the topic, "Should Teachers Be Required to Present, from Time to Time, Evidences of Increased Scholarship?" Superintendent J. H. Van Sickle, of Baltimore, Md., followed with a statement of the plan in that city for encouraging advanced studies by teachers.

The round table then adjourned.

N. L. Bishop, *Secretary*.

PAPERS AND DISCUSSIONS

EDUCATION AT THE UNIVERSAL EXPOSITION, 1904

I. FROM THE VIEW-POINT OF THE CHIEF OF THE DEPARTMENT

HOWARD J. ROGERS, CHIEF OF THE DEPARTMENT OF EDUCATION, ST. LOUIS, MO.

A great international exposition is not the result of chance conditions. It never develops from commonplace motives. Some historic sentiment may give the initial impulse, may fix the place of holding, but it is quickly subordinated to the world-forces which come to a common center for the building of a world's fair. By common consent, and actuated by a common purpose, the nations of the world bring together for comparison and exchange their best work in science, art, and industry. The energy which creates the exposition; the judgment which places the exhibits under a classification which is in itself the latest contribution to a category of the activities of the world; the financial ability which judiciously controls the expenditure of fifty millions of dollars; the executive ability which cares for, instructs, and entertains thirty millions of people, form an epoch-making event. This event determines the relative progress of each country in every phase of human endeavor; it fixes the standard of national enterprise for the coming decade or generation.

Each of the international expositions has had its controlling motive, and each its important result. The latter is not always readily apparent, and often is appreciated only after a lapse of years, when we are able to look back over a great popular uplift and mark its beginnings; as we are able to trace the growth of industrial art in this country from the Centennial Exposition of 1876, and the growth of specialized training in the public schools of France from the Paris Exposition of 1878. But the motives are more clearly defined and stamp the character of the exposition. The first one, the Crystal Palace Exhibition in London in 1851, may almost be said to have been fraternal, since international comity and the establishment of better commercial relations were the avowed object of its promoter, Albert, prince consort. In the Paris expositions art has been the motive—art in its broadest sense, as applied to industries as well as to the purely æsthetic. In Vienna, in 1873, commercialism was the dominant factor; it was the only failure of the nine great international expositions. In Philadelphia national sentiment received its highest recognition in exposition history. In Chicago there was a less clearly defined motive at the start and a more brilliant result at the finish than in any previous exposition. It had its rise in historic sentiment, to be true; but it was too remote to be more than an excuse, and too accidental to create enthusiasm. The location of the Columbian Exposition was the result of a sharp rivalry between three cities; but, having given it to Chicago, fate drew together a group of broad and brilliant men for its development, and as a result the White City —with its Roman classic architecture, its magnificent distances, its landscape gardening, and its Court of Honor—stood forth as an object-lesson to the American people, more impressive, more convincing of the absolute necessity of the adaptation of art to the life of a nation, than thousands of sermons or years of instruction.

In the St. Louis Exposition of 1904 the motive, avowed at the beginning and emphasized thruout, is *education*. The appeal to Congress for funds, to the states of the union for support, and to foreign nations for co-operation was made on this basis. Education in its broadest terms is meant—the education which comes to a people from observing art and architecture in heroic models, from inspecting exhibits grouped with regard to their dependence and relation to each other, and from seeing processes in connection with the exhibits which will take the raw material and transform it, under the eyes of the waiting crowd, into the finished product ready for the markets.

In the furtherance of this idea the classification of the exhibits division has a scientific theory underlying it. It does not begin with agriculture, as at Chicago, and end with transportation, because the alphabet runs that way; but it has a logical development, the result of the experience of two great expositions. As expressed briefly in our prints:

> At the head of the exposition classification has been placed Education, through which man enters social life. Second comes Art, showing the condition of his culture and development. Liberal Arts and Applied Sciences are placed third, to indicate the

result of his education and culture, illustrate his tastes, and demonstrate his inventive genius, scientific attainment, and artistic expression. These three departments equip him for the battle and prepare him for the enjoyments of life. The raw-material departments —Agriculture, Horticulture, Mining, and Forestry—show how man conserves the forces of nature to his uses. The Department of Manufactures will show what he has done with them; the Department of Machinery, the tools he has used. The Department of Transportation will show how he overcomes distances and secures access to all parts of the world; the Department of Electricity will indicate the great forces he has discovered and utilized to convey power and intelligence. And so through the several departments to Anthropology, in which man studies man; and to Social Economy, which will illustrate the development of the human race, how it has overcome the difficulties of civilization and solved the great problems in which society is involved. Last is placed Physical Culture, in which man, his intelligence having reached the supreme point, is able to treat himself as an animal, realizing that his intellectual and moral constitutions require a sound physical body to prompt them to the proper performance of their function.

The main purpose of the exposition is to place within reach of the investigator the objective thought of the world, so classified as to show its relations to all similar phases of human endeavor, and so arranged as to be practically available for reference and study.

That we shall reach in full this ideal no one prophesies; that we shall reach the higher because of it no one doubts.

In an exposition of this nature, therefore, the educational exhibit has a double responsibility—to represent properly its own subject, and to introduce fittingly the scheme of classification. It has received from the first most generous consideration from the exposition authorities. The National Educational Association was requested by them to recommend a chief of the Department of Education, which by the action of a special Advisory Board it did. A beautiful building, the first ever devoted solely to education at an exposition, was assigned for its exhibits. The building is in the center of the main picture of the exposition, and covers seven acres of ground. Every request for the development of the exhibit has been granted, if warranted by the general policy of the exposition.

The object of the educational exhibit, as announced from the first, has been twofold: first, to secure a comparative exhibit from every country in the world noted for educational progress; second, to secure a comprehensive exhibit of every phase of educational effort in this country.. Both may be said, with reasonable limitations, to have been attained. The foreign nations of England, France, Germany, Russia, Italy, Sweden, Belgium, Japan, China, Mexico, Cuba, Brazil, and Argentina are participating. What they will exhibit, how they will exhibit it, and how thoroly they will cover our classification, we have no means of accurately determining until their exhibits are installed; but they have expressed the highest appreciation of our plans, and we have every reason to believe that they will be followed as closely as a classification based on the educational system of one country will permit the system of another country to do. Two of the countries made appropriations for an educational exhibit before a general participa-

tion in the exposition was decided; and one made a minimum of 5,000 square feet in the educational building a *sine qua non* for participating at all.

In the domestic section thirty states are exhibitors, representing every section of the country. Four cities will make individual exhibits—New York, Chicago, St. Louis, and Cleveland—demonstrating the working of a highly centralized municipal system. In all other parts of the public-school exhibit the state is the unit, as perforce it must be in our federal system. We have taken all the pains that suggestion and insistence would warrant to have the state exhibits carefully classified and graded, and to prevent repetitions and duplications. These will occur, for local pride is very assertive; but we trust they may be minimized

In the university section, Harvard, Yale, Columbia, Cornell, Johns Hopkins, from the East; Chicago, Michigan, Wisconsin, Illinois, Missouri, Washington, St. Louis, and Minnesota in the central plain; and California in the West, are the principal exhibitors. The professional and technical schools and colleges for women are equally well represented.

In respect to the classification and space, a special Advisory Board of the National Educational Association, of which Dr. W. T. Harris, United States Commissioner of Education, is chairman, supervised the first. The department is divided into eight groups and twenty-six classes. The space relatively allotted to each group in the domestic section is as follows: elementary and secondary education, 47 per cent.; higher education, 22 per cent.; special education in fine arts, 3 per cent.; special education in agricultural and mechanical schools, 13 per cent.; special education in commerce and industry, 4 per cent.; education of defectives, 6 per cent.; special forms of education and miscellaneous features, 5 per cent. Domestic education as a whole occupies 57 per cent. of the department space, and foreign education 43 per cent. Every foot of space is allotted, and we have a large waiting list ready to take any space surrendered.

Such is the condition ten weeks before the opening of the exposition. It does not come within the scope of this paper to discuss special features of the exhibit. Were I asked to name one or two, I should select the industrial exhibits and art exhibits.

The theoretical stage has been passed; the facts are about to develop. Upon this development depend the results. Of the educational exhibit from the standpoint of the chief of the department, therefore, no positive assertion can be made. The plan of development seems to us rational; the co-operation of the exhibitors has been promised. If the plan proves tenable and the exhibits are thoroly in accord, the exhibit will be a success. By as much as either falls short, by so much will the exhibit fail of a full success. Under the first condition—which, we believe, we are warranted in predicting to be the true one—there will be demonstrated the right of education to the first place in a classification of the world's activities; there will be demonstrated the unity of the educational processes of this country, north and south, east

and west; and there will be demonstrated the superiority of the training given our youth over that given the youth of other countries in all that tends to produce a self-reliant, loyal, and well-rounded citizen of the republic.

II. EXHIBIT OF THE UNITED STATES BUREAU OF EDUCATION

W. T. HARRIS, COMMISSIONER OF EDUCATION OF THE UNITED STATES

[AN ABSTRACT]

Commissioner Harris stated that the exhibit of the bureau at St. Louis would consist largely of charts illustrating various phases of educational statistics. Photographs would also be employed to show the appearance of school buildings, and to give one at the same time some idea of the social characteristics of the teachers and pupils. Pains have been taken to obtain from specimen counties in different parts of the United States photographs of all the school buildings in the county, the pupils being drawn up in front of the buildings and the teachers standing in their midst. One or two cities also have been shown in the same way. No city or county is shown on the exhibit unless photographs are obtained of all of its schools.

The great idea of an educational exhibit is to make things talk. It was at the Cotton Centennial in New Orleans that I first learned how effectively this may be done. At the Centennial Exposition at Philadelphia gifted persons here and there over the country had invented one or more devices for making things talk, and their exhibits were very instructive along one line or another of educative work. At the Cotton Centennial these inventors were singled out to prepare exhibits in education for that exposition. Not only did the American educational exhibit prove very instructive at New Orleans, but the exhibits from some foreign nations were of great interest—particularly that from France, because of the artistic skill of the French. The artist, whether a painter or sculptor, has a gift to make stone or canvas express character. The average Frenchman is more of an artist than the average inhabitant of any other country, and this national characteristic appeared in the educational exhibit at New Orleans. Things could talk a language which all nations might understand, and one could see how interesting the instruction must be in a French school.

We are to have in our exhibit at St. Louis monographs and leaflets which will contain in compact form the information which is given on great charts so arranged that he who runs may read. These will be handed to visitors who manifest special interest in this or that particular feature of the exhibit.

III. SOME CITY EXHIBITS: THEIR PURPOSE AND PLAN

A. ST. LOUIS

F. LOUIS SOLDAN, SUPERINTENDENT OF EDUCATION, CITY SCHOOLS, ST. LOUIS, MO.

St. Louis is the home of the Fair. Her city school exhibit will be that of the host, as it were, in the group of city schools. Therefore it would seem to be appropriate for her to seek to present, in the arrangement of the matter of her exhibit, a type of the work of the city schools of the United States, rather than to show the special features of the St. Louis system. In preparing for this exhibit, it was seen at once that there were difficulties of two distinct kinds, which necessarily limited the completeness of an educational exhibit and determined its character.

First, education can properly be shown only in its effect on the pupils. It cannot be exhibited in an adequate way except in the life of the school from day to day. The silent processes of gradual transformation which bring about the growth of the pupils cannot be exhibited. All that can be done is to show with what the school surrounds its children in the way of material and intellectual environment—those things that are concomitant with the process of education.

The second difficulty arises in trying to make the exhibit immediately attractive. The processes of the various forms of human industry in other departments of the World's Fair will be exhibited in the results obtained from stage to stage of the process. For instance, in the textile or the machinery department the results of the industry, as well as the processes, can be exhibited. Both are attractive and interesting in themselves, even for the one that is not an expert. Such an exhibit you can read as you run. In education, however, the resulting product of growth displayed in an exhibit can be discovered only by a study and comparison of work shown in the successive stages of school life.

The inference drawn from this necessary character of the school exhibit is that, since the appeal is to study rather than simply to inspect, the form of the exhibit must be that of the library. Chairs and tables, and free space, must be provided, so that books of material, and the charts and pictures, can be studied at leisure.

The space occupied by the St. Louis exhibit will be about 140 by 27 feet. A decorative scheme for the inclosure is essential, and this should lend itself as an educational exhibit also. The façade will consist of a number of pillars connected by arches, about twenty in all. Each pillar, apparently massive, will have in its sides and front transparent panels that shall represent pictorially the history of education from the earliest times—the ancient Egyptian, the Greek and Roman, schools of the Orient, and so on. In the spandrels between the arches and the pillars similar transparent panels will show children's faces as they have been taken at school-work, all aglow with interest.

On the wall space will be cabinets and shelves for books of the children's work. Above these will be exhibited pictures and casts taken from some of the schoolrooms of St. Louis, and showing the objects of art actually used in their decoration. The material of the school-work exhibited will be arranged in order from the kindergarten to the high school. The close relation of kindergarten to home and church will be seen in the work grouped around a Christmas tree, made beautiful by electric lighting—as will be all of the exhibit. Enlarged photographs of classes at work will show their happy faces in an apparatus which presents a new picture every minute.

The building department of the schools will be represented by models of some of the school buildings, and of special features introduced in their construction. By means of diagrams the organization of the school system will be shown in state, county, and city. Finally an actual schoolroom will be fitted up 25 by 27 feet, and in this room children will be taught for a few hours every day. The work will be such as can be given under such conditions—kindergarten and construction work, manual training and the work of the laboratory in the high school, music, physical culture, classes with deaf children, etc.

In the mode of representation the idea is to have all of the work that of the children. The written work will be collected into books having appropriate covers designed by the children. In designing covers for books to be devoted to the different subjects, as science, geography, etc., the children were asked to submit drawings in competition, and a committee of artists then selected several of the most appropriate.

B. THE CITY OF NEW YORK

ANDREW W. EDSON, ASSOCIATE CITY SUPERINTENDENT OF SCHOOLS, NEW YORK, N. Y.

To speak of the beauty and merits of your own child, and especially to do this in a public manner, requires great self-confidence, or at least great confidence in your offspring. Modesty, or sane discretion, leads me to hesitate somewhat in describing the educational exhibit of the city of New York at the St. Louis Exposition, especially after hearing this very full and elaborate explanation of what St. Louis proposes to do.

In the first place, a word of apology is perhaps our due. Last September we introduced into our schools a new course of study. This course necessitated the extension from a seven-year course to an eight-year course in Manhattan and the Bronx, in what was formerly New York city. In extending the work, in introducing new studies, and in making so many radical changes, we found that the preparation of an exhibit at this particular time was a very difficult and delicate task to undertake. A year ago we could have made a better showing than we can this year; a year hence we could make a much better exhibit.

The thought that I have to present may perhaps properly come under three headings: written work, photographic records, and school architecture. In the presentation of written work, it seemed best to a large proportion of our instructors to determine upon a change from the traditional method. We had in mind the fact that school exhibits are usually the greatest fakes afloat; they breathe dishonesty from start to finish. Instead of representing fairly and honestly the work of classes, they ordinarily represent the combined effort of a few skillful pupils, plus the teacher, with much of the latter mixed in all along the line. That is, in most school exhibits the papers presented are understood to be those that have been worked over and over, revised, corrected, and copied until all mistakes have been eliminated and the execution made perfect. *The product*, rather than *the process*, is made the important feature, with seldom a hint of the method by which the subject is unfolded.

In order to have all sections of the city represented, four schools from each of the forty-six school districts in the city were selected, thus giving us about two hundred schools and six hundred classes to prepare work for the exposition. In order to restrict the amount of work in any one school, and to make the preparation of the exhibit comparatively light, no school was allowed to have more than two subjects, or more than two grades at work on any one topic. During the months of December and January the classes were asked to prepare ten sets of papers. From each of the nine of these exercises the best six papers were selected. In the tenth exercise, prepared during the second week in January, all the papers of the class—good, bad, and indifferent—were reserved in order that we might have a fairly representative showing of all of the pupils engaged in the work.

Each pupil's paper had the following heading:

THE CITY OF NEW YORK. LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, 1904.

Public School	Borough of .....
Name	Age .....
.....year .....half.....	Subject .....

To accompany each set of papers, whether six or fifty papers, a statement blank was filled in by the teacher of the class. This statement was designed to answer the inquiries sure to arise by all who inspected the work. The following is a copy:

EDUCATIONAL EXHIBIT,
LOUISIANA PURCHASE EXPOSITION,
ST. LOUIS, 1904.

THE DEPARTMENT OF EDUCATION, THE CITY OF NEW YORK

TEACHER'S STATEMENT

1. Subject .....
2. .....year of school-work .....half
3. Number of pupils in class .....
4. Number of pupils whose papers are here exhibited.....

5. Time per week given to class instruction in this subject.....
6. Connection of this exercise with previous or subsequent work.....
7. Questions or topics given to class.....
.....
8. Time spent by pupils in preparing for the written exercise.....
9. Nature of preparation.....
.....
10. Time occupied in writing.....
11. Usual method of criticism or revision by class or by teacher.....
.....

I hereby certify that the following papers exhibit the pupils' first drafts and show the regular work of the class.

(Signed) .....TEACHER.

School..... Borough of.....

Dated.....190..

Teachers were directed to hand in only first drafts of written work. Some few teachers protested against this course, insisting that it would place our schools at a great disadvantage, as the teachers of other cities would certainly have their work corrected, copied, and perfected at every step. In some few cases a set of papers was copied, but in all such cases the first draft accompanies the copy, so that a visitor can see the first effort. We expect to have some three hundred bound volumes of four hundred sheets each, and fifty-eight wall-cabinets, each cabinet with thirty-three sheets of mounted cardboard, 22 by 28 inches, and ninety albums with twenty-five leaves, 18 by 22 inches. In these volumes, in the wall-cabinets, and in the albums we shall have work which we think will fairly and honestly exhibit something of the work of the schools of our city. This is our hope and expectation.

In our photographic exhibit we shall have six or seven hundred photographs, 8 by 10 or 11 by 14 inches. These photographs will cover the whole field of our educational activity. They will represent classes at work, the conditions under which they work, and the method of our work in our vacation schools, playgrounds, recreation centers, recreation piers, roof play grounds; classes at work in the kindergarten, in laboratories, in our night schools as well as in our day schools, in the parks, at the botanical garden, at the zoölogical park, at the natural-history museum, and at the aquarium.

The third phase of our work is in the line of school architecture. We lay claim to having the best school architect in this country. We propose to have some thirty or thirty-five large photographs and drawings of our latest and best type of school buildings, as well as four models of school buildings costing some $500 each. From the pictures and models, from the plans and specifications, we expect to show to the public something of what we are doing in the erection of the best type of large school buildings. All that we can say, then, is that we trust you will all visit our exhibit, that you will make as careful and thoro an investigation as possible, and that you will be kind and considerate in your criticism.

THE COURSE OF STUDY IN ELEMENTARY AND SECONDARY SCHOOLS

I. THE SUPERINTENDENT'S INFLUENCE ON THE COURSE OF STUDY

W. H. ELSON, SUPERINTENDENT OF CITY SCHOOLS, GRAND RAPIDS, MICH.

Any intelligent survey of the superintendent's duties will reveal the commanding importance of the matter and method of the course of study. All other official duties focus at this point. It is the crowning issue in school administration, to which all else is incidental and contributive. What goes on in the schoolroom in the daily contact of teacher with pupils in the process of instruction is fundamental and vital. This is the "firing line," as it were, to which the entire machinery of the school is but means to end. It is here that the real course of study—not the theoretical one on paper—finds its way to the children; here the course of study is seen in action, both as to matter and method; it is here that expert leadership is needed, and it must function here if its influence is to be felt in the conduct of the school.

Whatever tends to liberalize instruction—to organize, unify, and vitalize it, thereby rescuing it from blighting formalism and lifeless monotony, and making the appeal to individual initiative and to the spirit of investigation and inquiry in children—strikes at the very soul of school-life. My excuse (if, indeed, an apology were necessary) for pointing out with emphasis so evident a fact as that of the tremendous importance of the course of study, is the large demand which other and relatively less important matters make upon the superintendent's time and energy. It is not easy to keep a clear perspective of values among the various details that press for attention in the routine of school administration. An active superintendent finds it easy to assume duties akin to those of clerk of supplies or purchasing agent; to become a gatherer of statistics; to supervise buildings and grounds, with incidental attention to repairs and janitors; to select sites and superintend the construction of buildings; to find himself performing mere clerical duties; these and other details lose him to the real purpose for which he, officially, exists, which is: to raise the standard of teaching and to improve the quality of instruction in the schools.

The superintendent is—should be—the expert, *par excellence*, in matters relating to the course of study, particularly as to its scope and method. This is the one field in which his knowledge as a specialist renders him supreme. It is this expert knowledge that distinguishes him as a superintendent, and which entitles him to consideration as such; and it is this service that the schools most need. The layman or the ordinary observer can in no sense be relied on to form accurate and just conclusions in so intricate and many-sided a problem as that involved in a course of study.

This professional leadership of superintendents will be recognized and accepted by the public in the degree in which it shows a genuine professional insight, and the courage to organize this illumination of vision into a sane and well-ordered administrative policy. It will be recognized and welcomed by teachers and principals in the degree in which it is genuinely helpful in dealing with fundamental difficulties; in the measure in which it throws into relief certain organizing and unifying principles which must ever form the light of guidance to teachers, thereby lifting them out of the fragmentary one-year view of both subject-matter and child-life—which school classification imposes—and giving them glimpses of the unity and wholeness of both, which are essential to any adequate perspective of educational values or of the educative process as a whole. It will be effective in the degree in which it sets teachers and principals to work—actively, intelligently, sympathetically, by committees or otherwise — constructing and arranging subject-matter in accordance with these guiding principles, seeking constantly to liberate them in their work, relying much on their judgment as to details, thereby stimulating a healthy sense of responsibility and professional spirit, and securing the careful study of environment and of individual children or teachers.

Such professional leadership illuminates every detail of practice and vitalizes the entire school organization. By its constructive and uplifting influence it creates a healthy attitude toward children and life, offers opportunity for individual initiative and for the achievement of purpose, guards against the pitfalls into which inexperience or restricted vision must inevitably lead, and sanctifies all with an attitude of good-will. Under such benign leadership monotony and deadly uniformity gradually disappear, quantitative standards give place to those of quality in which originality and individuality are prominent, the ability to apply knowledge to new problems becomes the measure of progress, and the adaptation of work to individual needs and conditions constitutes the test of efficiency.

A course of study should be suggestive rather than prescriptive, broad enough in outline to give free scope to original treatment, comprehensive enough to secure consideration of all essential matters, explicit enough to secure organic connection in the work as a whole, and sufficiently pedagogical to enable teachers to adapt the work to the children's capacities and interests. The making, as well as the administering, of such a course of study requires the combined wisdom of teachers, principals, and superintendents. So intricate is the problem, involving as it does such a wide range of contributive influences, as to call for the massing and utilizing of all available capital in the way of insight, knowledge, and experience which the school plant controls. This is essential, not only to the making of an effective working-formula, but also to an enlightened interpretation of it on the part of teachers, and to an intelligent and sympathetic co-operation in carrying it into effect.

The influence alone upon teachers of such a policy of administration argues strongly for its more general adoption. Nothing so effectually kills mechanism, stimulates responsibility, enlarges the field of vision, and vitalizes the entire work of teachers as does their active participation in the consideration of questions relating to the matter and method of the course of study. Such a policy organizes the teachers into a normal training-school of the highest type, and brings out the best in each individual teacher.

In practice, courses of study are often determined by agencies wholly independent of the class-room teacher—by the superintendent, the supervisor, or the special teacher. The class-room teacher, who must finally give reality to every phase of the course, thus escapes the necessity of studying the real problem; no requirement is placed upon her to estimate the educative value of the material which she uses; she has no reason for assuming responsibility for these things; she is not therefore a student of the fundamental questions involved in her work; she is not, in the language of commerce, a producer, but a jobber—a handler of goods produced by others.

It is sometimes pointed out that there is a parallel between the modern factory system and the public-school system in that plans and commands in both cases come from above. This is necessarily, tho unfortunately, true to a considerable extent; but I hold that anything approaching an earnest and thoughtful study on the part of teachers of the fundamental problems in education is impossible until they are placed in a position of responsibility in regard to the course of study and given large freedom in the achievement of results. They must be charged with the business of weighing, testing, and evaluating subject-matter; they must know, not only the matter of the course, but its value in the development of the child; and they must know how to adapt it to the needs of the child. In respect of these things they must be held responsible for the exercise of personal good judgment. We need more democracy in our educational practice and a larger recognition of the ideas of the workers.

It must be pointed out, however, that the factory system deals with material things; its output is a material product; while the school system fashions spiritual things, which do not respond to mechanical stimuli or "orders" handed down from a governing head. When teachers are given large responsibility in selecting and adapting material to the needs of the children, their entire attitude changes. They form ideals of their own, make plans for achieving these, and enjoy the glow of success that attends the realization of worthy aspirations. The continuous enjoyment that comes to teachers in creative work of this kind is alone of distinct value to a system of schools. Superintendents who successfully combat the parallelism between the factory system and the school system, thereby making their teachers true factors in the life of the school, interesting them actively in its most vital problems, will exercise a far-reaching influence on the course of study. They will likewise minimize greatly the disparity that too often exists between the course of

study as it appears on paper and as it comes to the child in the daily work of the class-room.

Yet, in the making as well as in the administering of a course of study the superintendent must lead, inspire, and guide. For the study of the matter and method of the course, principals and grade teachers should have representatives on the superintendent's cabinet. Naturally the superintendent has the widest horizon relative to the whole subject; he is in closest touch with social conditions and needs; he has the deepest appreciation of the unity of the entire life of the child and of the entire field of subject-matter, consequently of the organic connection between school studies and the life of the child; while his assistants may know more than he in their respective fields, especially as to what is attainable in the several grades. For this reason they can outline in detail more effectively and to better advantage than can the superintendent. The superintendent's judgment as to what is of most worth is more valuable than that of his subordinates who work with a more limited horizon; with him must rest, therefore, final decisions as to the matter of the course. This implies that the superintendent is a student of education as it is viewed by others than those in his own system of schools.

The superintendent's influence in administering a course of study is more important than in constructing it. This should be a wide, extensive influence rather than a narrow, intensive one, giving subordinates large freedom within reasonably wide boundaries, and passing upon the results rather than dictating specific methods. It is necessary to adapt the course of study to the ability and skill of teachers as well as to the varying conditions and needs of pupils. It is possible to construct a course on purely theoretical lines, which only a master of the practical in education can administer; a bungler will fail with the most nearly ideally constructed course.

A vast difference exists with reference to the superintendent's influence on the course of study between small cities, where he can supervise every detail of the work, and large cities, where he does his supervisory work largely by proxy thru his principals or assistants. In the former case he can assist every teacher by direct suggestion in efforts to adapt details of the work to local and individual conditions. In the latter case this work must be done by the principals, and his own direct suggestions are necessarily of a more general character, leaving much latitude in application of these principles. Yet in both cases greatest good will come if he seeks constantly to raise the ideals of teachers, giving freedom to use their ability to realize these ideals, stimulating initiative in every way in principals and teachers—by relying in the details of their work, both in matter and method, largely on their judgment; by enabling them to feel that they are true factors in the life of school; by stimulating a sense of personal and professional responsibility and self-esteem; consequently, by framing the course of work on broad lines which may secure a healthy unity but avoid the pitfalls of deadly uniformity: by encouraging discussion, and personal and professional research by judi-

ciously commending success; by tactful criticism; by free recognition of merit and the elimination of manifest incompetence. To this may be added the inspiration of his own example and occasional messages from aggressive colleagues.

This in no way precludes on his part the occasional issue of suggestions as to matter and method, entering even into minute hypothetical or observed details. However, these should always come as suggestions or helps—never as cast-iron directions or orders. "Directions and orders" should be confined wholly to the published general course of study. The superintendent's chief strength lies in the encouragement that comes to teachers from the approval of good and judicious work. Those things which he does not approve usually vanish in a short time, even without direct criticism. A healthy, all-sidedly progressive spirit has no other ground to stand on; it is of necessity constructive in its nature, stimulating initiative and giving freedom in execution. Likewise, test-papers, reviews, examinations, and questionings on his rounds of visiting afford much valuable opportunity to show discrimination in regard to good work, and to stimulate attention on the part of teachers and principals to things which he considers of value or importance—permanent or temporary. "Ruts" vanish cheerfully before judicious neglect in these matters on the part of the superintendent.

The stimulation and nurture of initiative is the chief business of method. The child's growing knowledge in all subjects should serve as real tools in the achievement of purpose. All that he knows is to be placed at the service of his productive and creative ability. In individual development, initiative appears as aggressive interest which leads to effort, to acquisition, to research, discovery, invention. In social development it means leadership, the effective application of individual power, progress. It is therefore the effective element in education.

We need not only organization and unification of the subject-matter of the school course, incidentally eliminating much nonessential and duplicate material, but more than all else we need a method which shall use the child's gains in knowledge in progressive achievement, applying these to the everyday problems of life within the range of his capacity and experience, thereby securing in him the attitude of self-expansion and self-assertion, and establishing him in the habit of purposeful efficiency. This demands not only an enlargement of the field of the manual activities of the school, but also the recognition on the part of teachers of the fundamental value of these in the growing life of the child. The school must no longer content itself with the mere imparting of information; it must measure results by what the children can do, by their daily output in the work of the school. What they get is not important; what they do is all-important. Manual activity enriches and strengthens all mental life. The school should give more manual work, tho not less knowledge—more art in drawing and decoration, more modeling in sand and clay, more basketry, weaving, sewing, and knife-work.

In general we do not need less number-work, less grammar work, etc., so much as we need a method in which number-knowledge and grammar-knowledge will serve as real tools in the achievement of purpose, and, consequently, in the stimulation of initiative with reference to such purpose, as well as with reference to a fuller control of these tools. It is not that the schools give too much knowledge of arithmetic and grammar, but rather that they do not give enough. The school makes its great mistake in giving its stipend in mechanical, unrelated, mere dry-as-dust drill which arrests development and clogs initiative. The pupils should be encouraged or enabled to use their growing number-knowledge consciously and progressively in form and art-work, in nature study and geography, and in the various manual doings related to these and other studies. Similarly, they should be enabled to use their growing knowledge of grammar in creative oral and written work, in relation not only to literature, but to every other subject of vital interest. Such a method will lead them to respect arithmetic and grammar and will in due time induce a genuine interest (initiative) of research which will open the way for broader and deeper results in these studies than we can boast of now.

Social work as a means of stimulating initiative has a value not fully realized by the school. In the subdivision of tasks and in concerted efforts to achieve a common purpose, initiative on the part of each participant is necessary and natural. They involve the stimulus of conscious leadership and conscious co-ordination, in both of which personal initiative plays a part. In the subdivision of tasks, each participant feels that, with reference to his phase or share of the work, he alone is responsible; that there must be no shirking, and that there will come to his work the reward of grateful appreciation by his associates. In mutual co-ordination there is a similar sense of personal responsibility with reference to the achievement of the common purpose, and, consequently, a spontaneous desire to grasp fully this purpose, the means for its achievement, and the relation the work of each pupil bears to this, together with an equally spontaneous effort on the part of each to do his best.

In the stimulation of initiative, manual training and drawing—expressive and decorative—do not in themselves necessarily involve greater force than other activities. These can be, and often are, taught as slavishly and mechanically as are arithmetic and grammar. Here, too, it is the method, not the matter, which decides. Here, too, if initiative is to be reached, the pupils must be encouraged to use whatever skill they may successively attain in the achievement of individual and social self-expression. Art and artisanship must be growths, not transmissions.

The superintendent's faith must be "large in time," if his influence on the course of study is to be wholesome and helpful. Evolution is slow, and radical changes in instruction and training do not accord with the natural growth of institutions, especially those that influence the spirit of man. The superintendent is the "governor" and the "fly-wheel" of the educational

system. "Progressive conservatism" is his word of command. Evolution—the gradual changing of what is to the next step of its growth—and not revolution, is his motto. A course of study is a growth. It is subject to constant change in order to meet new conditions and new insight. This suggests the field of the superintendent's greatest influence.

II. WHAT OMISSIONS ARE ADVISABLE IN THE PRESENT COURSE OF STUDY, AND WHAT SHOULD BE THE BASIS FOR THE SAME

FRANK M. McMURRY, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, NEW YORK CITY, N. Y.

Assuming that there is much overcrowding in our curriculum, let us consider the main ideas that have been guiding teachers during the last generation in their selection of matter, and determine which of these are now acceptable to us as standards for omissions. Then we shall proceed to discuss the omissions that these accepted standards require.

1. Belief in utility long ago established the three R's in the curriculum, to be accompanied by spelling, composition work, grammar, geography, and some physiology. This, to be sure, might be material quite free from thrilling incident for the pupil, but it was considered absolutely necessary for later life.

Our present interpretation of social requirements and needs includes this doctrine of utility, but is much broader. Hence we now admit all this matter and much more.

In the first place, health is accepted as a larger factor in life and in the school. We therefore require, not only physiology and hygiene, but physical examination of children, and games and physical exercises in abundance.

Secondly, history, including civics, and nature study must be added to these, without debate.

Thirdly, our belief in emotion as a vital factor in securing efficiency is far stronger than formerly. Hence much more emphasis is placed on literature, music, and fine arts than twenty years ago. Thru the latter subjects one is made, not only more refined and sympathetic in various directions, but more energetic as well. The function of emotion is the production of energy, and energy is coming to take the same rank in education as steam takes in manufacturing.

Fourthly, the old notion of utility, coupled with greater belief in efficiency, calls also for manual training, domestic science, and domestic art. These are studies that combine theory with practice. Indeed, the accepted principle, "No impression without expression," not only strongly supports these subjects, but is even insisting that an end point of practice be added to various other studies, such as fine art, literature, and nature study, thereby threatening greatly to increase the amount of time necessary for such branches.

In brief, therefore, our present attitude toward social requirements and

needs, as the first standard of selection of a curriculum, is the same as that of a generation ago, only much broader. We accordingly are now willing to admit the same lines of work as that standard formerly admitted, and several others. But other ideas have been very important in introducing and rejecting subject-matter, especially the topics within these separate lines or studies.

2. The children's mental ability is one of these ideas. In the main, the limits in the children's power of comprehension have always acted as a check to the introduction of material. Yet not an absolute one by any means. A retentive memory, for example, has often led to the introduction of memory gems from the Bible that could not be comprehended till later. But we have now become generally convinced that there is so much classic material, even in the Bible, which children can fairly understand, that there is no need of admitting other selections. The one argument supporting this conviction is the fact that the younger a child, the more important that each year and each subject of study prove richly nourishing to him. The fullest possible growth *now* is the fullest preparation for the future. Therefore it is folly to sacrifice the present for the future, and any subject that cannot be fairly comprehended by the child at the time it is presented should be excluded.

3. The children's interest has been a third factor, closely related to the preceding, and recognized as increasingly important in recent years. On the whole, interest is necessary for the same reason as comprehension: both are essential to proper digestion. But the interest likely to be aroused by a subject should not be an absolute test of its worth. Every kind of subject-matter should run the gauntlet of the two first-named factors—to wit, social needs and the childs ability to comprehend—before being accepted in the curriculum. But not so with this third point. Indeed, these first two standards, particularly the first , may be so important as to overrule the third entirely. This is the only explanation of our admission of spelling, writing, the multiplication table, and beginning reading into the curriculum. For certainly we do not expect the intrinsic interest excited by these studies to make the children hilarious. In other words, in spite of improved methods, there is some school-work that approaches drudgery in its nature, and we propose to retain it because it is a social requirement. The test of interest, therefore, is not absolutely binding. We can only say that, in general, whatever does not promise to excite an intrinsic interest has one strong point scored against it; and, unless other reasons for its acceptance are particularly strong, it should be rejected.

4. A fourth factor that has been very influential on admissions to the curriculum has been the scientific attitude toward knowledge. According to this idea, any fact is valuable because it is a fact, and should therefore be learned. Remarks of that kind are frequently heard in nature-study classes. It is partly the love of mere logical completeness that has led to extensive classification in grammar and in science, and that insists on the cause of the seasons in geography. But this idea, so far as I can see, should be utterly

rejected as a standard of selection, on the ground that it has no negative side; it lets down the bars for anything and rejects nothing; hence it is non-selective and cannot guide.

5. A fifth extremely influential factor has been "the harmonious development of all the faculties" as the accepted aim of instruction. But what topic would be rejected when tested by relation to this aim? Like the former, it is a blanket excuse for anything and everything. Recall, for instance, how it has favored the hard problems—the puzzles that puzzled the teacher—in arithmetic, the mere lists of names in geography, and of dates in history. It should be utterly rejected as a standard of selection, on the ground that it is absolutely non-selective.

Mental development should be expected as a very valuable by-product brought about in the course of the accomplishment of pieces of work that for other reasons deserve to be done. Only when this view is taken, and when the above statement is forgotten, as a test of subject-matter, can I see promise that one of the chief barriers to a sane curriculum will be removed. I realize that my last two points, when applied to the high school and the college, tend to knock the props out from some prominent studies, as algebra, for instance; but I for one am ready to go on record as opposing those subjects that owe their existence in the curriculum mainly to the fact that they contain facts, or exercise the mind. Life is too full of large specific ends to be attained, to allow time for work that has no really tangible object.

6. The sixth and final factor that I wish to discuss is the definition of thoroness. I am convinced that our conception of thoroness is one of the most important factors—indeed, the most vital factor—to be considered in the present problem. Thoroness in spelling means the mastery of every word; thoroness in primary arithmetic means a mastery of every possible combination of numbers within a certain limit; thoroness in beginning reading and in writing, likewise means primarily a knowledge of each word or letter. In these subjects, on the whole, there is no special organization of matter called for; the unit of progress is one small fact; questions as to what is large and small, or as to relative values, do not fit in, and there is no excuse for neglect of any single part. One must simply begin at the beginning, and work until he reaches the end. Here the sum of the details in each study makes up the whole; hence in these cases the proverbs hold that "thoroness has to do with details," and that "trifles make perfection."

Now, it is natural to want to apply this conception of thoroness to other branches of learning, thereby placing all the facts of literature, history, nature study, and geography on the same level as equally worthy of attention. Then it becomes the duty of the teacher and pupils to run down facts. But their task is hopeless; for there are so many possible things to consider that such studies as these have practically no beginning or end. They contain very many large, and innumerable small, thoughts, many of the largest being not even in print, but to be read between the lines. And thoroness in them

means, first of all, judicious selection, a careful choosing of the more valuable parts, with willingness to neglect the rest. This latter is the vital point here. Thoro instruction parallels good discipline in the requirement that many things be overlooked. Until we have learned to slight, and even to omit outright, as well as to lay special emphasis here and there, we are unprepared to read a book intelligently; and until our conception of thoroness favors such action freely, we lack one of the first elements necessary for the selection of a curriculum, particularly the major part of it, the details. In brief, thoroness in the treatment of most topics means the selection of the main points and whatever details are necessary to support them, with the neglect or omission of whatever facts are comparatively unnecessary or irrevalent to these main issues.

Of the six standards for selection that have now been considered, two are rejected outright because they are practically non-selective, namely, truth for truth's sake, and the harmonious development of all the faculties; and one needs very serious modification—the conception of thoroness. Accordingly we hold to the following propositions in the rejection of subject-matter:

1. Whatever cannot be shown to have a plain relation to some real need of life, whether it be æsthetic, ethical, or utilitarian in the narrower sense.

2. Whatever is not reasonably within the child's comprehension.

3. Whatever is unlikely to appeal to his interest; unless it is positively demanded for the first very weighty reason.

4. Whatever topics and details are so isolated or irrelevant that they fail to be a part of any series or chain of ideas, and therefore fail to be necessary for the appreciation of any large point; this standard, however, not to apply to the three R's and spelling.

Now for the application of these standards.

It is evident at the start that, in spite of our large number of studies, not one can be wholly omitted. Reform does not lie in that direction. It is well to call to mind too, when violent complaints break forth against our excessive number, that the French program for the common school includes all the branches that we ordinarily have, and distributed over about as many years. Substantially the same statement holds for Germany; for, while she largely neglects handwork, except sewing for girls, one of her most prominent subjects is religion. And the English code of 1900 for the public elementary school almost duplicates the German plan, with the exception that various kinds of handwork tend to take the place of religion. Judged by these civilized nations, therefore, we have not yet gone mad in our devotion to fads.

Omissions, then, must be confined to particular topics and details. Again the example of the French is suggestive, for every second year of their course they largely duplicate the work of the preceding year, thus devoting nearly one-half of all their time almost exclusively to review, aside from the abundance of review provided while the ground is being covered for the first time.

1. Let us first apply these standards to arithmetic. The contents of even the newer texts can scarcely be any guide whatever, because commercial

competition has made these books almost encyclopedias on quantitative facts. But on the basis of social custom, our brief standard, the following things—very often taught—may well be omitted:

Apothecaries' weight.

Troy weight.

Examples in longitude and time, except the very simplest, involving the 15° unit since our standard time makes others unnecessary.

The furlong in linear measure.

The rood in square measure.

The dram and the quarter in avoirdupois weight.

The surveyor's table.

Table on folding of paper.

All problems in reduction, ascending and descending, involving more than two steps.

The G. C. D. as a separate topic, but not practice in detecting divisability by 2, 3, 5, and 10.

All common fractions, except those of a very low denomination and customary in business.

All work with L. C. M. except of such very common denominators as those just mentioned.

Complex and compound fractions as separate topics.

Compound proportion.

Percentage as a separate topic, with its cases.

True discount.

Most problems in compound interest, and all in annual interest.

Problems in partial payments, except those of a very simple kind.

The same for commission and brokerage; for example, all problems involving fractions of shares.

Profit and loss as a special topic.

Equation of payments—made unnecessary by improved banking facilities.

Partnership—made unnecessary, in the old sense, by stock companies.

Cube root.

All algebra, except such simple use of the equation as is directly helpful in arithmetic.

In addition to all of these, arithmetic may be omitted as a separate study thruout the first year of school, on the ground that there is no need of it, if the number incidentally called for in other work is properly attended to.

2. In geography the following subject-matter might well go:

All explanation of the cause of the seasons, except the mere fact of the changing direction of the sun's rays. There is no special demand for such matter (except possibly teachers' examinations,) and it is beyond the grammar-school pupils' comprehension, calling into use our second standard.

The cause of the tides, leaving the fact only.

Quite probably one of our two treatments of Asia, Africa, Australia, and South America. French and German children study their native country very thoroly, and Europe fairly well. They attempt comparatively little with the remainder of the world. We would be unwilling to adopt their plan. But why could we not have one good treatment of these four continents—with more interesting detail than we ordinarily present in either our small or our large geography—and then expect the supplementary reading to continue this geographical knowledge? It should be remembered that, while we have a large amount of supplementary reading, its content is not usually prescribed. But it should be. This plan might save one year of geography work.

3. In grammar the potential mood can probably be omitted, and all of the minor classifications, such as the kinds of limiting and of qualifying adjectives, of co-ordinate and of subordinate conjunctions, etc. This separate subject need not then receive more than one year of study, with one period daily.

So much for the omission of somewhat definite topics—a very inadequate treatment, I must admit.

These suggestions, if adopted, might lead to some improvement. But the main remedy lies outside of them. When we get beyond the three R's, spelling, and a modicum of arithmetic, geography, and grammar, there is no public pressure brought to bear upon teachers compelling them to cover any recorded amount. For example, what portion of the public, or even of school superintendents, knows, or greatly cares, just how much ground is covered in literature, history, color-work, drawing, domestic science, domestic art, physiology and hygiene, manual training, music, nature study, and gymnastics? Then why do teachers complain so much of overcrowding? That leads back to my main point, already referred to under thoroness:

There are a great many persons, who can master all the facts in a five-page history lesson, who cannot master the main facts in twenty pages. Why? Because they have never learned to select—to choose principal points and let others go. They must take all, or they flounder. This is the difficulty that confronts teachers when they approach a modern curriculum. We believe in an enriched course of study, with many options, in accordance with the preferences and abilities of children and teachers. But the latter, being accustomed to begin at the beginning and take everything as they go, in spelling, in multiplication, etc.—even to the end, often the bitter end—are confused when they come to such studies as literature and nature study that really have no well-defined beginning or end. What can they do? Merely begin and go as far as they can, and then sigh over the impossible task assigned.

And when finally one topic has been chosen from among a dozen suggested—as the crayfish, for example—in nature study, note the same tendency to go from beginning to end—in this case, from head to tail—observing "all that one can find." How otherwise would one know when he had finished? I am not wanting to decry the average teachers here. These remarks apply rather to our so-called best teachers—to those who are really excellent in most respects.

In one of our best schools I was recently present while a second-grade class reached the conclusion that grasshoppers habitually lived in dry, sunny places, the children when playing having seen them there. They decided that the insect went under boards and rocks when it rained, and some related how they had fed some captive grasshoppers apple and water. I saw a fifth grade write out a description of a dead red oak leaf, the paper nearest me reading as follows:

RED OAK LEAF

Size—7½ inches long; 4 inches widest part.
Shape—Somewhat oval, widest at top.
Lobes—alternate, long pointed, ten lobes on leaf.
Indentation—ten indentations, rounded, deep, alternate.
Petiole—short, thick, dark brown, mid vein thinner near top of leaf.
Veins—alternate, thin, not many.
Color—dark brown, near mid vein.

What a mass of worthless matter in such instruction! Much of it so valueless that there is no pretense of reviewing it next day: it is even unnecessary for examinations. Here lies probably the greatest waste in our instruction. Where there is no careful selection of details, there is only an aggregation; chaos rules there and despair is constant, because the field can never be covered.

The teachers are not satisfied with such haphazard work, but it is difficult for any of us to do much better. However, the difficulty lies, not in method, but in the choice of matter; and I desire to make three recommendations in regard to the remedy:

In the first place, that the subject-matter in those branches that easily offer mere aggregations of facts, like history, geography, and nature study, be brought under as few large headings as possible, just as a good lecturer is under obligations to present his thoughts under a very few points. These headings, too, should be so worded as to be truly restrictive. Chapters in history on "Columbus, or the Early Explorers" and the "Settlements," or in geography on "The Western States," do not meet their requirements: they admit a wide range of fact, much of which may be practically valueless. Suppose, on the contrary, according to the suggestions of some of my friends, we study in history "How the Europeans Found a New World," "How Spain Took Possession of This New World," "How a Rival Sprang up in France," "How the English came to be a Second Rival," etc.; also, in geography, "What Are the Principal Industries That have Become Established in the Western States, and Their Causes?" Satisfactory attempts in this direction would mean an organization of matter from the teachers' point of view, while heretofore it has been largely from the scientific point of view, or possibly from no point of view. Such organization would bring about extensive eliminations of minor topics in all the studies.

In the second place, those subtopics should be selected in each branch of study that are the best types of large groups, and that thus give control of the strategic positions in the field. In history, for example, the causes of our wars might be considered in detail, but the study of the wars themselves should, I believe, be reduced to a very few crucial campaigns and battles, these being accepted as representative of the others. So irrigation about Salt Lake City or in southern California might be carefully studied, once for all, as a type of such attempts the world over. There is already a growing conviction that strategic positions, as secured by types, should receive

the same emphasis in the curriculum as strategic positions in a physical way receive in warfare. As that idea is applied further, it will make us willing to omit entirely many topics that we now include, and do more intensive work on a few.

In the third place, the leading questions that need to be answered under each type, or other topic, need to be clearly conceived in order to find a basis for selection of details. For instance, I have an extension class of seventy-six primary teachers—much above the average in ability—who agreed on twenty-two little points about the cat which they desired to teach, as a topic in nature study. But until the principal questions which they had to answer in regard to the cat were known, to which these many facts might be the answer, their subject-matter was absolutely unorganized, and they were unprepared to give the instruction. Now, our main interest in cats is as pets, and if we set out to learn (1) to what extent cats can provide for themselves, and (2) therefore to what extent and how we should take care of them as our pets, we shall cover all that is necessary about them. And when we desire only the answers of these problems, we are given a standard that allows the omission of the number of teeth, the color of the hair, the length of the tail, and forty other facts that might consume time. So, if we set out to find out how grasshoppers sometimes prove injurious to man, and what means may be used to destroy them, we must discuss the food of the insect, its voracious appetite, its means of locomotion and quickness, its enemies, including parasites, its protection by mimicry, and its stages of development; but we shall have no time to consider whether or not it knows enough to go under cover when it rains, provided it can find cover, or the fact that it can eat apples, since it will never get many apples to eat anyway.

Similarly, in geography, if we set out to learn what are the main industries that have sprung up in the western states, with the causes, we shall need to consider the climate and topography, as the principal key to the situation, and then the mining, lumbering, agriculture, manufacturing, trade and manufacturing centers, etc.; but we shall have no excuse for bounding all the states, learning each capital, and locating various capes, small towns, insignificant mountains, etc. Above all, we shall be unwilling to drop into the state-treatment of our theme, which means the severing of a connected story into disjointed parts, a mere aggregation, dry enough to cause a healthy child to long to play hookey, not for the pleasure anticipated, but for the pains escaped.

My three suggestions aim at a better organization of subject-matter. The one study that is not an offender in this direction is literature. It shows a few large thoughts supported by innumerable details; but the latter are so subordinated to the former that the outline of the whole is simple; also the consequence from fact to fact is so close that reproduction from memory is easy. Here is an example of ideal organization of subject-matter. The problem is: Shall other studies, likewise containing an abundance of rich thought, aim at

similar organization; shall they approach a narrative form, thus providing an easy perspective, and abandoning all detail that is irrelevant or that fails to fall into line?

This is evidently a life-problem; for reform, in the main, is not to be effected by lopping off here and there, but by changing the present aggregation of ideas in each study to an organized body of thought. It is not the task of grade teachers either, or of the scientists in the ordinary sense, but of the most advanced and ablest students of education. But more than insight is necessary in bringing about such a change. The violence of complaints among teachers against overcrowding has been equaled only by their obstinacy when it came to definite omissions. But we must honestly agree to be willlng to omit many things, even tho they have long been held sacred, and were even instrumental in bringing many of us to our present high state of perfection. All of us have been radicals for some years in admitting new things. Let us apply the same spirit now to the omissions.

DISCUSSION

E. H. Mark, superintendent of schools, Louisville, Ky.—While I agree with the author of the paper on many points, yet there are some on which I cannot agree. I do not believe that the main subjects in the present course of study for elementary schools have been increased. On the contrary, the topics in arithmetic have been materially decreased in the past twenty-five years. Much more technical arithmetic was taught a quarter of a century ago than now. In the amount of technical grammar taught there is a great decrease. The basis of the course of study in the elementary, secondary, and higher schools will be determined, in a great measure, by the object of school instruction. There has been a rather definite agreement as to this object, so far as the work of many of the higher institutions is concerned, as is attested by professional and technical schools. But our ideas as to the work of the elementary and secondary schools lack definiteness; in consequence, the courses of study in these schools have become "catch-alls" for everything that human ingenuity has conceived as necessary for the needs of the children of the present day. I am not convinced that either the present needs or the interest of the child should play important parts in the selection of the course of study. There are two positive results that the successful school must achieve: (1) it must reveal the world to the pupil; (2) it must reveal the pupil to himself. But, before the world can be revealed to him, he must have a command of the forces within himself. The first efforts of instruction must be education for culture, for the purpose of gaining command of what Dr. Harris has aptly termed the "conventionalities of intelligence." These conventionalities are the arts of reading, of writing, of the use of figures, of drawing, etc.

School instruction in its elementary and secondary stages should be largely given to the acquirement of the technique of reading, of writing, of arithmetic, of language, of literature, of geography, of history, and of science. There must be a mastery of these techniques before the pupil is able to make any considerable progress in his efforts at gaining an insight into the world in which he lives. They are to be the tools by which he is to attain a knowledge of the world and a command of its resources. The acquisition of these techniques may be neither interesting nor pleasurable. I believe in making them as nearly so as possible. But as in life much of the work of the child will have to be done from necessity, so in school I would make prominent the acquirement of knowledge because necessary. I would not have the drill and drudgery taken away because they

are not interesting. The early training should look to the future and not be confined to the present. The one great aim of education is the forming of good habits. Good habits in reading, in writing, in language, in mathematics, etc., are the chief ends to be attained in elementary and secondary schools. Elementary education should not be made so easy that the child can in any way mistake the work of study for play. The child must learn that there is "no excellence without great labor." Huxley has well said that the most valuable result of education is the ability to make yourself do the thing you ought to do, when it ought to be done, whether you like to do it or not. I would introduce the pupil thru the "conventionalities of intelligence" to the world made up of modern life, modern conditions, modern forces, and modern responsibilities. I would not put him to the study of literature until he had acquired the technique of reading. I think there is not so much a demand for elimination as for substitution in our present course of study.

The complete elimination of much of our so-called nature study would be a long stride in the right direction. Much of the material and many of the books on this subject which we now use in our schools need to be eliminated for the good of the pupils in our schools, and in the interest of science. Again, too much of the dim past calling for a great amount of time in the study of mythology, legends, and ancient history has crept into the course of study of the elementary schools. Are not the duties of an American citizen more important than the manner of life of a Roman in the time of Pliny, or the intricate formation of Cæsar's army in the time of battle? Are not the facts of modern science more wonderful than the fancies of the Greek and the Roman as revealed in their mythologies? It is true that many obsolete topics have been eliminated from the arithmetics, but are not the same problems found in our present text-books that were found in those of fifty years ago? Does not the most abstruse of all the subjects of the school curriculum—formal grammar—still hold its place in the elementary schools as the chief factor in consuming an immense amount of time without giving the pupil any command of himself, so far as the use of good language is concerned? Does not this subject belong in the category with psychology and logic, and should it not be a study in the secondary schools, as recommended by the Committee of Ten? Does it not come under the second of Dr. McMurry's requirements for elimination, viz., "beyond the comprehension of the child"? Finally, I do not know that I am willing to accept the courses of study of England and Germany as models for our own, for Alfred Russell Wallace, one of the foremost thinkers of England, has said, with reference to education: "Compared with the astounding progress in physical science and its practical applications, our system of government, of administrative justice, and of national education, and our entire social and moral organization remain in a state of barbarism." And Haeckel, the great German thinker, says: "To our great regret, we must indorse these words"

J. H. Phillips, superintendent of schools, Birmingham, Ala.—The overcrowding of the curriculum of the school may be traced to several specific causes. The most important of these causes is the ever-expanding circle of knowledge and the increasing complexity of our civilization. Coupled with this is the evident lack of discrimination in the selection of essentials. Another cause is the reliance placed in the public school as a social agency. This faith in the power of the school has induced the introduction of much subject-matter with the hope of accomplishing certain reforms. The so-called enrichment of school programs has consisted too often in the addition of subjects to subserve immediate ends. There seems to be an increasing tendency to hold the school responsible for all the sins of the American people, and to utilize it as an agency of social and civic reform. Right or wrong, this tendency is responsible for much of the congestion in our school programs. There is no question of the fact that our school curricula reflect the commercial spirit and the material demands of the age in which we live. The dominant spirit of expansion has affected our courses of study; and it is well to check this spirit, for a time

at least, and to consider whether the flag of the public school may not be withdrawn from a few provinces without disadvantage or dishonor.

Dr. McMurry's adoption of the principle of interest, even in a modified sense, as a test of the subject-matter introduced, may be questioned. I am not prepared to accord to his principle of interest equal validity with the other factors named, in the determination of admissions to, or exclusions from, the course of study. If the subject-matter conforms to the other two requirements laid down; if it is adapted to the child's comprehension, and provides that which is required by the civilization into which he is born, it seems to me that the question of interest should be considered solved, except of course so far as concerns that kind of interest which properly belongs to method rather than matter.

I heartily indorse Dr. McMurry's suggestions in his treatment of thoroness. He presents here a fruitful theme for our consideration. Unquestionably, the proper organization of subject-matter in text-book and in recitation, so that nonessentials shall be omitted, will serve to abbreviate our school courses, and will thereby result in economy of time and effort.

Right here I wish to suggest another criterion which, in my judgment, should not be overlooked—one that has not been suggested in the paper, unless it is implied in "social needs and requirements."

In the biological field the selective principle seizes upon the permanently useful rather than the fleeting and the temporary. Those individual variations that contribute to the permanent welfare of the species are appropriated by the colony, while those characteristics of the species that cease to be of service become atrophied and disappear. The young animal, as it comes into the world, finds its inheritance stored in its physical organism. Its individual life, therefore, consists merely in the discharge of this stored battery. The human child finds its inheritance principally outside of its physical organism, stored in civil and social institutions, in history, literature, science, and art. It is the business of the school to induct the child thru self-activity into this external inheritance. The appropriation of this vast heritage of the race which we call civilization is impossible. Besides, all the elements of this civilization are not equally important; all social demands are not equally imperative. Some of these elements are temporary and ephemeral, while others are constant and permanent elements of progress. In our selection, shall we consider only that which may prove useful to the individual, or shall we not regard those elements which tend to promote the permanent welfare of the race, as equal, if not greater, in value? Those elements which are permanently useful and conform to the highest ideals of the race should be embodied in our school programs. This leads us to an ethical criterion for the evaluation of material. All elements, therefore, that are not ethically sound, and are not permanently useful to the race, should be eliminated from the curriculum. It seems to me that we need the ethical principle today to supplement the principle of utility, which too often has regard for expediency and temporary social ends. We need to apply more rigidly to our courses the criterion of ethical and spiritual values—a criterion which transcends in importance the test of social needs and requirements. We should demand in our school programs, not simply that which is within the comprehension of the child and t' at which embodies the demands of the society of today, but also that which is ethically pure and calculated to lift the individual into the highest and richest spiritual life of the race.

The application of this principle to the several subjects in our courses of study will place some of the omissions suggested in the paper in a new light. In arithmetic, for instance, money values would play a less important part, and the commercial ideal would gradually become dethroned. We should have fewer problems in interest, profit and loss, and brokerage, and more in measurement and quantitative nature study. In geography, the memorizing of a mass of ephemeral facts, and a multitude of details that change with each decennial census, would be abandoned; the geographical attainment dictated

by social needs could be acquired more rationally in connection with history during the last two years of the elementary course.

Under the application of the ethical criterion, a vast amount of useless, and even demoralizing, material could be profitably omitted in the study of history. The military ideal would be less prominent, and heroism would not be confined to the battlefield. From one-third to one-half of the average text-book in United States history now used is devoted to war and bloodshed. The application of the ethical principle would reduce the treatment of wars to a statement of their causes, the names of decisive battles, the personnel of the commanders of the contending armies, and the general results. In biography and literature the principle would find wide application, and much of the rubbish now passing as literature in the schools would be omitted because it lacks the elements of permanency and ethical value. The omissions thus made within each topic, together with the improved presentation of subject-matter as suggested by the paper, would probably reduce the average elementary-school program so that at least one year could be saved to the pupil in the accomplishment of the work.

Clinton S. Marsh, superintendent of schools, Auburn, N. Y.—The child acquires thru his five senses all that he comes to know; his home experiences open for him to a very limited degree the commonest avenues of life thru which he acquires a small vocabulary. To him, sense-training is as necessary to unfoldment as oxygen to the lungs. By touch and muscular sense he adjusts himself thru the kindergarten and manual training; and in the adjusting of his brain-cells and muscular sense he shapes objects in clay, wood, iron, raffia, and other materials to correspond to the things that are not a part of himself, and gains a knowledge of relations of things, without which training he sees things apart, just as he sees a play upon the stage which he can in no sense reproduce. "To increase rational joy is one of the objects which public education should always keep in sight."

The subjects below the high school that have become quite commonly established may be classified into five correlated groups: (1) reading, spelling, literature and language, history, and geography; (2) history, geography, nature study, and language; (3) kindergarten, manual training, drawing, nature study, and number; (4) music and literature; (5) number apart from its connection with other subjects.

Eliminate number from the first two grades, except as an incident of the schoolroom and life.

If it can be done without too greatly disturbing present standards and calculations of engineering and science, substitute the metric system for our compound system of numbers, and thus save nearly three years in the study of arithmetic.

Grammar must be simplified so that pupils shall acquire by the drill of the last two years below the high school the parts of speech, case-relation, inflection, principal parts of verbs, and classification of phrases and clauses. The time usually given in earlier years to grammar should be devoted to expression, oral and written.

Geography should be treated as a separate subject from the fifth to the seventh grade only, and then in such a way that place and mathematical relations are but an addition to the scientific, historical, and general knowledge gotten by correlation to other subjects. Spelling should be taught largely as a part of reading and language, and the study of lists should be confined to Grades V to VII only.

With arithmetic thus reduced to five years (or to six, if we supplement it in the seventh and eighth years with algebra); with formal grammar reduced to two years, by emphasizing at the proper psychological period the elements of English grammar, and by trusting to the study of foreign languages in the high school to formulate further grammatical principles; with spelling largely taught as a part of language work, and with emphasis placed on geography as a separate subject in the fifth to the seventh year, we make these the drill periods in the essentials of knowledge; emphasize, not minimize drill, and by elimination free the program from overcrowding. Two important factors to make these better taught

than they have ever been taught are correlation and a method of teaching that shall teach the pupil how to study. It is true that children no not know how to study. I believe the great factors responsible are three: (1) poor preparation of the lesson on the part of the teaching force, and a failure on its part to grasp the pupil's mental attitude; (2) overcrowded schoolrooms; (3) two divisions or sets of pupils in a room. By far the greatest error is the last. Any system that seeks the brightest pupil, rather than every individual, is to that extent a failure. The number of pupils per teacher should be reduced to thirty-five or forty; but, far more, the teacher should stand before one set of pupils, holding every moment the attention of every pupil in recitation or in study—the latter quite as much as the former.

Every superintendent and teacher should recognize the oneness of reading, literature, spelling; the oneness of literature, spelling, composition; the oneness of composition and every other subject in school, by giving credit in composition for written work well done in history, geography, arithmetic, domestic science, and every interest of school and life; the oneness of drawing, nature study, and manual training, by making the supervisior of drawing the correlator of manual training to his subject, by having the pupils do all the mechanical and decorative drawing of the manual-training department in the grade-rooms as part of the drawing lesson, and by recognizing that drawing is a method of self-expression in its application to nature study. Three things are necessary for successful treatment of nature study in the public schools: correlation of nature study to language, correlation of nature study to home geography, and correlation of nature study to drawing. It is not necessary to give any time to nature study outside of the three studies named. Let reading in the grades become, not an art, but a means to the end of acquiring acquaintance with literature, history, geography, art, and language.

Thru a full comprehension of the possibilities in the principle of unity of interest in related subjects, by elimination of topics, by regarding the psychological period for study and drill upon any given topic, and by attention to teaching the pupil how to study, the ourses of study of the grades should not be overcrowded.

ATHLETICS AND COLLATERAL ACTIVITIES IN SECONDARY SCHOOLS

F. D. BOYNTON, SUPERINTENDENT OF SCHOOLS, ITHACA, N. Y.

We all have a somewhat definite notion of what is meant by the term "athletics," but the phrase "collateral activities" is all-comprehensive and may include everything outside of regular class-work. For the purpose of this discussion, the term "collateral activities" will be made to include the work of musical and literary clubs; concerts and theatricals given by the students; the work of congresses and debating societies; and the social functions of the school, such as receptions at which dancing is permitted. Under "athletics" will be included football, baseball, basket-ball, track-work, tennis, hockey, golf, and rowing.

It is conceded that the public-school system is the bulwark of American institutions; that without it the problems resulting from immigration could not be solved; that without it American institutions would soon become Europeanized. For strength to perform this fundamental task, it relies chiefly upon its hold on the affections of the American people. To the boys

and girls in the schools today it must look for a continuation of that future support which its enlarged field and increased burdens demand. I hold, therefore, that those activities that tend to make the public schools more useful by increasing the attendance, that tend to endear them as institutions to the hearts of our boys and girls, will also tend to retain for them the love and enthusiastic support of these boys and girls when a few added years shall have made them men and women, and make more certain the perpetuity of American institutions. To encourage such activities is not only legitimate, but the only sensible thing to do.

That such activities do attract and hold in school many students who would not otherwise continue, probably few teachers who have been closely associated with student life will deny. This is an age of doing. The spirit of doing seizes a lad long before he has outgrown the compulsory-education law. In obedience to this spirit, many a boy who has been misunderstood at school has entered prematurely the ranks of wage-earners rather than submit to the monotonous grind of an educational machine. This spirit of wanting to do something is a force ever present in the boy of parts, and often dictates and controls his actions. We want such boys in the schools; and not them only, but their less gifted brothers as well. It is not true that we are educating too many people. It is the business of the schools to educate, so far as possible, all the people that are not actually abnormal—the poor and the rich, the mentally strong and the mentally weak, the morally good and the morally bad. We want the people in the schools. If it is necessary to have concerts and lectures and debates and receptions and athletics "to have and to hold" them, by all means let us have these things. In adding them we are only following the precedent we have already established by admitting to our schools the elective system.

In the last twenty-five years the curriculum of the public school has been revolutionized. It has been broadened and enriched in order to better train the pupil for citizenship. Training for citizenship is the supreme test, the ultimate aim of popular education; it is this result which justifies the state in expending public money in the support of schools and warrants local taxation to supplement the efforts of the state. In order to train for citizenship, we must do more than cultivate the intellect. The school must be more than an intellectual machine. Great as is the intellectual work to be done for the boys and girls in our public schools, it is only a part of the program. More and more must our schools look after the moral, the spiritual, the economic, and the social welfare of their pupils. The signs are so plain that he who runs may read. Witness music, drawing, sewing, cooking, manual training, permanently added to our school programs. Note the breaking away from tradition shown in the liberalizing of the high-school programs, the increase in the number of courses of study, the injection of electives into all of them, the addition of bookkeeping, typewriting, stenography, and of all that the laboratory stands for. Horace Greeley, were he living today, would

change his advice to young men. He would say, not "go west," but "go to school;" for school now means a multiplied contact with life. We no longer hold that a subject is educationally valueless in proportion as it is practically valuable. On the contrary, we now think that a subject that has no connection with the real issues of life, that furnishes nothing but an opportunity for mental gymnastics, is a waste of time; and we have no time to waste.

Now, the widening of school activity along the lines we are here considering is only an extension of this movement. The question to be asked in regard to it all is: Is it educative? Does it subserve the purpose for which the public school exists? If so, then time should be found, or made, for the education of our pupils along these lines not set down in books and not represented in the class-room. Personally, I am persuaded that a secondary school that has no musical clubs, no literary or debating societies; that does not give concerts, receptions, simple theatricals, public debates, lectures, declamation contests, and the like; and that devotes no time to the various forms of physical training, falls far short of what it should be, and of what the secondary school of the future is going to be. In or out of school such activities are bound to exist, or some substitute, possibly a dangerous one, to be found for them. Properly guided and controlled by the school authorities, they can be made a valuable means toward the education of our pupils. Such guidance requires the expenditure of additional time and energy on the part of the teachers, and the objection is always raised that teachers have quite as much as they can attend to already. Unquestionably, much the easiest course would be to shut our eyes to the existence of such activities. But that is impossible; we have already passed beyond that stage of the question. The time is not far distant when teachers who are unwilling to devote time "out of hours" to the proper development, guidance, and control of such student activities, will need to seek employment in another occupation.

My position, then, is this: I would countenance the existence in all secondary schools of musical, literary, and similar clubs and societies, and such other activities as above mentioned; in addition, I would sanction all the previously mentioned forms of athletics; but I would have athletics and collateral activities as much under the direction of the teachers of the school as are the classes in algebra. I would have them all conducted at the school building, or at such places and at such times as the authorities of the school should designate: and a teacher would always be present to direct the policy of the organization, whether in the school building during school hours, or outside the school building or the town, outside of school hours.

But the interest in this subject centers chiefly around athletics. So long as it is a question of extending the countenance of school authority merely to such activities as those of debating, musical, and literary societies, little opposition develops. The connection of these organizations with the former ideals of the school as a place for the intellectual training of youth is obvious

enough to make the step easy. But when we face the question of sanctioning athletics, however, we find that the ideal has changed somewhat. The hero of the school is no longer the youth with immense head and prodigious learning, with pale face and fragile body; but rather the lad who breaks records in athletics, and at the same time keeps his scholarship well above the average.

'The real boy loves play. If he does not play and does not love to play, he is abnormal; he is unhealthy mentally, morally, or physically. No matter what marks he may be getting in his studies, he is a freak." By "play" I mean diversion from his academic studies between the close of school and tea-time, and on an occasional evening. Play should not, therefore, be eliminated from the school program; rather, it should be made an integral part of it. Schoolboy sports are as old as boys and schools, and will continue until that dreadful day arrives when the last boy shall have grown into a man.

Springing, as it does, out of the universal play instinct, the demand for athletic sport is but a logical result. That the schools, as they attempt more and more fully to provide for the complete development of their pupils, should sooner or later have to face the demand for physical training is also inevitable.

In truth, we need in the schools all the athletics we can have, provided only that they are properly directed. The problems confronting us today are far different from those that grew up with the men who "made and preserved us a nation." They were trained, for the most part, on the farm, in the open air. Those of you who have tried farm life know that it is a strenuous lif , that the physical t: aining is long and hard. For men so trained there was no need of athletics or physical training in the schools. But those conditions have changed. The rapid movement of our population into cities and towns has made the physical training of urban boys and girls a matter of vital importance, both to themselves as individuals and to the nation as a whole. Superintendent Maxwell is credited with having said recently that many of the graduates of the city college, tho they had passed the examinations for teachers' licenses with high marks, were breaking down completely as teachers because of inadequate physical preparation for their life-work; Andrew Carnegie has said that the men who have won the great prizes of the world have been men who were physically able to endure the strain when the crisis came in the race for success; and Thomas Hughes says that the battle of Waterloo was won on the playground of the great English public schools. If the boys and the girls reared in the congested centers of population are to be made into men and women with the physical vigor and endurance, with the ruggedness of character, possessed by their country-bred ancestors, they must be given physical training. Where shall they get it, if not in the schools?

Moreover, the question is not one of economic efficiency merely. It is of vast moral import as well. During the periods of recreation on school

days and Saturdays, and during the long vacation, there is for most of the children in our cities absolutely nothing to do. Therefore, while their parents are at work or amusing themselves, the children roam the streets and acquire the language and the morals of the streets. It is idle to say: "It is the function of the home to prevent such things; that the school must not usurp the function of the home." Meantime, what becomes of the boy? Compulsory-education laws and curfew ordinances in nearly every state of this union bear eloquent testimony to the neglect of childhood on the part of the home. Certainly, the school must not supplant the home, but where the home so wretchedly fails it should supplement it. The schools are the guardians intrusted with the care of the rights of childhood. The country boy roams the hills and has free access to "God's first temples." What can we offer to the city boy in exchange for his paradise lost? His only road to paradise regained is thru the gymnasium, the athletic field, and the playground.

More and more will playgrounds, out-of-door and indoor gymnasiums, and athletic fields, properly supervised and controlled by educational authority, become recognized parts of the educational plants of our larger towns and cities. When this condition prevails, systematic physical training will be prescribed for every pupil in the public secondary schools, as it now is in many of the best private schools. Pupils will report to the playground during the open season with the same regularity with which they now report to the gymnasium in those few fortunate public schools where gymnasiums exist. We will add to Commissioner Draper's statement, that no school should be built without an assembly hall, that no high school should be built without a gymnasium. Boys and girls who do not care to play will be made to play in the open air and in the gymnasium, under the guidance and supervision of teachers. In other words, physical exercise will be compulsory; and all forms of physical exercise, including athletics, will be put upon a strictly educational basis; which means that the abuses now so loudly complained of will for the most part disappear.

This may seem an ideal condition, but its realization has already begun. One principal writes me that his board of education owns a playground of seven acres within the city limits; another says that his school has thirty-four acres devoted to out-of-door sports; and still a third, that his board controls seventy-five acres on which, among other things, are nine baseball diamonds and eleven football fields. In many places principals and men teachers are devoting much time to the personal supervision of student activities outside of school hours. They are advising and directing their pupils in their athletic undertakings, playing with them in practice games, and lending them aid in the management of their finances, in the arrangement of their schedules, going with them in their out-of-town games—all to the general betterment and uplift of the whole school. Our public schools are suffering from a lack of men in the system—men who are willing to associate with boys and who can still be men. Just as we have demonstrated that there was plenty of room

for other things and for the three R's at the same time, so we are to prove that there is ample time for all students to become interested in some form of student life outside of academic studies without injury to the latter; or, if it should prove that there is not room for both, it is by no means certain that public opinion would not demand the curtailment of the purely academic.

But these conditions are ideal and do not exist generally. Under present conditions, would it not be better to forbid altogether interacademic football contests? This is the key to the whole situation. This game more than any other, with its defects and dangers, and the abuses that have grown up in connection with it, has brought upon school athletics a storm of adverse criticism. But these defects and abuses should be removed by school authority, and the game permitted to proceed. It must be admitted at the outset that football as it is played today is a dangerous game. The casualties of last season include fourteen men killed and fifty-two seriously injured. These figures do not include the Purdue University team that was wiped out in a railroad wreck. Any game fraught with such dangers is a matter for the serious consideration of all thoughtful people. We are inclined to agree with President Eliot when he says: "It is magnificent, but it is—war." And yet the game must not be condemned offhand simply because of its dangers.

There can be no question that the game stands first in the esteem of the American youth. It is idle to ask whether or not it should. We are hard up against the fact that it does. The story is told of Professor Wright, of Yale, who, finding that his classes took little interest in the exploits of Homeric heroes; that neither Ajax, the swift of foot, nor the warlike Diomed, nor the deeds of brave Achilles could compel their attention; that they showed no fondness for ox-eyed Juno, and were not even attracted by the beauties of the white-armed Helen, conceived the idea of infusing the modern athletic spirit into the old Greek forms by substituting modern names and deeds for the time-worn achievements of half-mythical heroes. He told his students to celebrate in epic verse modeled on the hexameters of Homer the exploits of Yale's football heroes. Inspiration was no longer wanting. The results surpassed expectation. Here is a specimen:

> This is the noble array which Rafferty, mighty in battle,
> Led to the glorious conflict, under the bonny blue banner.
> Farmer, the mighty line-hitter, low, smashing, firm as a mountain
> Guarded the center backfield; Metcalf, the speedy, stood next him,
> Holding the line at his right hand, and Mitchel stood hard by his left hand.
>
> Shevlin, whom Hermes, they say, had given his wonderful sandals,
> Guarded the right far wing, strong on offense or defensive.
> Rockwell, the crafty, was there, close behind Rorabeck, center,
> Whom Bloomer, the mighty line-smasher, and Batchelder, strong as a bullock,
> Aided on either side.

The story may be taken for what is worth. True or not, it is illustrative of a condition. Not our great universities only, but our secondary schools as

well, are devoted to football. There must be something at least interesting in the game when, as President Merrill of Colgate puts it "Thirty thousand people are willing to forsake comfortable homes and profitable business, to sit several hours upon boards in chill November winds" to witness it. Just wherein the fascination lies is a question upon which it is neither possible nor necessary to enter.

The game has been so much discussed that its virtues and defects may be quickly summed up. Let us first consider its defects. It is argued against it, that it is highly dangerous; that it is not a game of skill, but one of mere beef, in which ten pounds extra to a man will win the game, in which the object is not to show skill, but to win at all hazards. Besides these evils of the game itself, it is charged against football that, because of the intense competition inseparable from it, it fosters the evils of betting, of professionalism, of dishonesty and chicanery in the making up of teams. These evils are serious, and if they cannot be remedied, or greatly minimized, it is incumbent on school authorities to prohibit the game. This brings us to the questions: How valid are the objections? and, Can its defects be remedied?

It has already been admitted that football is dangerous; but it grows daily less dangerous. It is hedged about by rules, and officers are placed in the game to see that the rules are observed. If the rules are not what they should be, let school authorities change them. They are not the laws of the Medes and Persians. But if we oppose football on the ground of its being dangerous, then consistency requires us to take the same position with reference to all other forms of student diversion in which the element of danger occurs. I am willing to shift some of the responsibility for my stout championship of athletic sports, in spite of their admitted evils, to the broad and rugged shoulders of President David Starr Jordan, who says that "there is less danger for a young man on the ball-field than in the ball-room." Dr. Jordan would have us believe that there is a worse condition than physical injury or death; and his remark clearly points to the possible results, physical and moral, of all-day and all-night and all-week "festivities," to which many of our colleges are committed at the middle and close of the year's work.

As to the charge that football is simply a game of "beef," in which skill counts for little or nothing, I cannot but think that it rests either upon ignorance or upon a misconception of the game. No game that involves nothing but brute force could possibly develop the powers that football admittedly does develop. I feel sure that those who make the charge would withdraw it, should they make a study thru but one season of any good team.

The evils of betting, of professionalism, etc., which have grown up in connection with football have no inherent connection with the game, and are by no means confined to this branch of athletics. Moreover, with the possible exception of betting, they are matters absolutely within the control of the school authorities, and upon them rests the responsibility for making this

game, along with other branches of athletics, an agent for good instead of evil. We can make of our student activities what we will, provided we are willing to pay the price in time and thoughts and energy and interest.

School authorities have been somewhat slow in accepting this responsibility. They tried at first the policy of noninterference, particularly in the matter of athletics. But regulation of some sort soon became necessary. It became impossible to treat these activities any longer as nonexistent. Recognition then became necessary, either for the purpose of opposition and extinction, or for the purpose of control. Opposition and extinction are in most cases manifestly unwise; and thus it is gradually coming about, that school authorities are shouldering the responsibility so obviously theirs, and are assuming more and more the control of such activities. In athletics particularly considerable progress has been made in this direction. Many schools and colleges have succeded in excluding from all their athletic teams any but *bona fide* students. Others have gone farther and have excluded those who are not registered primarily for academic purposes. Some require, in the case of a student who has attended any other institution, a year's residence as a prerequisite to eligibility for the teams. Many require a definite academic standing of all students on the teams. Graduate managers, and athletic councils made up of members of the faculty as well as students, have done much to regulate the matters of accounts and the arrangement of schedules, and to secure the elimination of professionals, and the retention of the sports for those regularly enrolled with definite purposes of education. It is a most encouraging condition, and one that is sure to improve. Governing boards have accepted this responsibility. They realize that the key to the whole situation lies in the control of student activities; not in opposition or extinction. The battle is already half-won.

On the other hand, it is argued in its favor that it is a manly game, which, just on account of its risks, is likely to foster courage to a marked degree; that it is a game that "demands self-control under the most intense excitement; that it trains the judgment in quick and accurate decision; that it cultivates observation, gives power to detect, remember, anticipate, interpret and thwart the plans of opposing minds; that it inculcates prompt obedience; and so preoccupies the attention of all students, to the exclusion of much that was formerly mischievous in college (and school life), that it has become ally to good order and reasonable living." Courage, quick and accurate judgment, power of observation, prompt and unquestioning obedience—good qualities these, surely!

Or, to put these results into another form: they mean a careful and well-poised manhood of great physical endurance; a spirit of working together earnestly, enthusiastically, and intelligently for a given end, which is the spirit of our democracy; the desire of working for one's institution with one's whole mind and heart and strength, which in the world outside we call patriotism; and, finally, the determination to succeed in the face of great diffi-

culty, against odds, and at personal risk—a spirit which, carried on into life's work, means the continued supremacy of American institutions. We should think seriously before prohibiting a game that produces such results.

HERBERT SPENCER

I HERBERT SPENCER AND HIS INFLUENCE ON EDUCATION

W. T. HARRIS, COMMISSIONER OF EDUCATION OF THE UNITED STATES, WASHINGTON, D. C.

Between 1850 and 1860 Herbert Spencer published four essays on education. The first of these, under the title of "What Knowledge Is of Most Worth?" appeared in the *Westminster Review*, July, 1859; the second, on "Intellectual Education," appeared in the *North British Review*, May, 1854; the third, on "Moral Education," appeared April, 1858, and the fourth, on "Physical Education," April, 1859, in the *British Quarterly Review*. A reprint of these four essays, by D. Appleton & Co., appeared in New York in July, 1860.

More interest was excited by the publication of Spencer's *First Principles* in 1862. This was the first part of a complete system advertised in 1860 as a "System of Synthetic Philosophy" in five parts: (1) *First Principles*, (2) *Principles of Biology*, (3) *Principles of Psychology*, (4) *Principles of Sociology*, and (5) *Principles of Morality*. It is noteworthy that this distinguished man lived to complete the system announced forty-three years before his death. His autobiography is advertised by D. Appleton & Co. (in New York), to appear some time in March.

However much one may differ from Herbert Spencer in his views of the world, and however much one may be disposed to place a low estimate on the permanent value of his contributions to science and philosophy, all candid men can have only admiration for his love of truth, for his industry, and for his earnestness.

In 1866 I wrote the following words in a review of the *First Principles*, in which I criticised the arguments by which he established the groundwork of his system:

> The persistence and sincerity, so generally prevailing among these correlationists, we have occasion to admire in Herbert Spencer. He seems to be always ready to sacrifice his individual interest for the sake of truth, and is bold and fearless in uttering what he believes it to be.[1]

It had happened to me, as to many others born before 1850, to come into contact with the development theory, especially as popularized in a book called *The Vestiges of Creation*, written by Robert Chambers early in the for-

[1] "Herbert Spencer," *Journal of Speculative Philosophy*, Vol. I, p. 9.

ties. The development theory had appeared in astronomy a hundred years before. Indeed, it is worthy of note that the greatest philosophical thinker in modern times, namely Immanuel Kant, had set forth the nebular hypothesis and theory of planetary formations as early as 1755 in a book on the theory and history of the heavens. About 1850 this idea had become familiar thru many bold speculations that were proposed by enthusiasts. It was this idea in the mind of the public that inspired Spencer with the scheme of his life-work, namely, the proving of evolution in biology, sociology, morality, and psychology, as others had done in astronomy. *The Vestiges of Creation* was especially devoted to the principle of evolution in biology. By the time the *First Principles* of Herbert Spencer began to be read in America the idea of evolution was quite familiar, and while one set of minds were ready to welcome Mr. Spencer's ideas, which leaned toward the establishment of a mechanical first principle for the universe another set of minds were ready to contest his arguments and to set up a spiritual principle as the proper source of evolution. The latter class of persons took special offense at his denial of self-activity; for instance this:

> The mental act in which self is known implies, like every other mental act, a perceiving subject and a perceived object. If, then, the object perceived is self, what is the subject that perceives? Or if it is the true self which thinks, what other self can it be that is thought of? Clearly, a true cognition of self implies a state in which the knowing and the known are one—in which subject and object are identified—and this Mr. Mansel rightly holds to be the annihilation of both.[1]

It follows that consciousness is not possible in the sense that the self is a subject which knows itself as object. This makes consciousness, itself, an illusion. The reasoning which is involved here overthrows equally well the explanation of all vital phenomena thru the idea of self-activity. He applies a similar argument to refute the doctrine of the will and of its freedom:

> Each manifestation of force can be interpreted only as the effect of some antecedent force; no matter whether it be an inorganic action, an animal movement, a thought, or a feeling. Either this must be conceded or else it must be asserted that our successive states of consciousness are self-created. . . . . Either mental energies as well as bodily ones are quantitatively correlated to certain energies expended in their production, and to certain other energies they initiate; or else nothing must become something and something nothing.[2]

He expresses in varied forms this conviction of his that the phenomena of mind are products of nature and not forms of self-activity:

> Psychical changes either conform to law or they do not. If they do not conform to law, this work, in common with all works on the subject, is sheer nonsense; no science of psychology is possible. If they do conform to law, there cannot be any such thing as free will.[3]

In particular he explicitly mentions will, the most noteworthy form of self-activity:

[1] *First Principles*, 1864, pp. 63-65

[2] *Ibid.*, p. 284. [3] *Data of Psychology*, p. 220, 1st Am. ed.

The development of what we call Will is but another aspect of the general process whose other aspects have been delineated in the last three chapters. Memory, Reason, and Feeling simultaneously arise as the automatic actions become complex, infrequent, and hesitating; and Will, arising at the same time, is necessitated by the same condition.[1]

Since all modes of consciousness can be nothing else than incidents of the correspondence between the organism and its environment, they must all be different sides of, or different phases of, the co-ordinated groups of changes whereby internal relations are adjusted to external relations.[2]

Long before reaching this point, most readers must have perceived that the doctrines developed in the last two parts of this work are at variance with the current tenets respecting the freedom of the Will.[3]

This subjective illusion in which the notion of free will commonly originates.[4]

Consciousness and will, two forms of self-activity, are thus denied by Herbert Spencer's psychology. The phenomena of mind are not examples of self-activity, according to him, but are links in a chain of causality. The causal influence comes from beyond, indefinitely, and the *ego* has no power of its own by which to modify the links of this causal chain. The *ego* does not originate anything; it merely receives and transmits causal influence from beyond. If Spencer admitted that the *ego* by its own act could interfere with the chain of causality and modify some one of its links, he must necessarily admit that the *ego* can originate a new causal chain, annulling or modifying the previous chain. But he conceives that an example of freedom or power of origination of this kind would make psychology impossible, and he does not see, on the other hand, that unless such a power to originate exists, there are no facts left on which a psychology may be based, for feelings, volitions, and thoughts all imply self-activity, and hence the origination of causal influence. For in a volition the self acts as will; in thinking the self affirms or negates predicates of some object represented in the mind; and lastly, in the case of feeling, the self is engaged in a reaction against some passive state of body or mind; in all these cases the self is active. Hence to deny that the *ego* can originate is to deny the basis of psychology.

The student of Spencer's *First Principles* cannot fail to notice the adoption of Mansel's *Metaphysics*, and especially its application by the author to fix the limits of religious thought. Mr. Spencer's doctrine of the unknowable depends on the validity of Mansel's theory. It is worth while, therefore, at the outset to look at the foundations of this theory. It is well known that Mansel borrowed the idea from Sir William Hamilton, his master, who claimed that the ideas of the Absolute and Infinite are negative ideas, expressing our incapacity to conceive the Infinite rather than our positive comprehension of it. Hamilton says:

I lay it down as a law which, though not generalized by philosophers, can be easily proved to be true by its application to the phenomena: that all that is conceivable in thought lies between two extremes which, as contradictory of each other, cannot both be true, but of which, as mutual contradictories, one must.[5]

[1] *The Principles of Psychology*, Vol. I, chap. ix, p. 495.

[2] *Ibid.*, pp. 495, 496. [3] *Ibid.*, p. 502. [4] *Ibid.*, p. 502. [5] *Metaphysics*, p. 527.

He proves this by applying it to space and time:

> It is plain that space must either be bounded or not bounded. . . . . But though space must be admitted to be necessarily either finite or infinite, we are able to conceive the possibility neither of its finitude nor of its infinity. We are altogether unable to conceive space as bounded, as finite; that is, as a whole, beyond which there is no further space. Everyone is conscious of this impossibility. . . . . The one contradictory is thus found inconceivable; we cannot conceive space as positively limited.[1]

Think of this as we may, we all must agree with Hamilton that the thought of space always brings us to the insight that any limited space would require space to exist in. Space can only end in or be bounded by space beyond it; in other words, it can only be limited by itself. But such a limitation is a continuation and not a cessation. The attempt to conceive space itself as limited results in thinking the limited space as within a larger space. Space is of such a nature that it can only be thought as self-continuous. But Hamilton goes on to say:

> On the other hand, we are equally powerless to realize in thought the possibility of the opposite contradictory; we cannot conceive space as infinite, as without limits. You may launch out in thought beyond the solar walk, you may transcend in fancy even the universe of matter, and rise from sphere to sphere in the region of empty space, until imagination sinks exhausted;—with all this what have you done? You have never gone beyond the finite; you have attained at best only to the indefinite, and the indefinite, however expanded, is still always the finite. Both contradictions are equally inconceivable, and could we limit our attention to one alone, we should deem it at once impossible and absurd, and suppose its unknown opposite as necessarily true

With this Hamilton thinks that he has proved that the intelligence contradicts itself in the endeavor to decide upon the extent of space. But there is really no contradiction at all here, for the first view is confirmed by the second view. The first view sees positively that space is infinite, because any supposed boundary to it requires space to exist in, and continues space rather than limits it. Space is therefore infinite. But if infinite, it cannot be imagined as a whole. If it could be imagined, if we could form a mental picture of all space, it would follow of necessity that the whole of space is finite. A picture includes a portion of space, but not all space. This is exactly what Hamilton finds in his second view which tries to fancy or imagine space. The result is just what we should be led to expect as a consequence of the first view: "Imagination sinks exhausted." Imagination tries to picture space as a limited whole, but the mental picture finds boundaries to its picture, and these boundaries imply space beyond them; all limitations fall within a larger space, and do not include space as a bounded whole. Thus both mental operations agree; the one is a negative confirmation of the other. Thinking reason sees positively that space is infinite, while imagination sees that it cannot be imagined as finite. The infinitude of space is a positive idea, not a negative one. The idea would be a negative idea if our thinking of it could not transcend the limit; that is to say, if we could not think space beyond the limit.

[1] *Ibid.*

Time is also infinite. We can see this by considering that any beginning presupposes a time previous to it. If we suppose a beginning of time itself, we suppose that there was a time before the beginning of time. Time is therefore not limited, but continued beyond all boundaries set to it.

Thus examined, the law of the conditioned, which Hamilton acknowledges is "not generalized by philosophers," fails altogether. It is seen to be a fallacy resting on a confounding of thought with imagination. The infinite is not shown to be a negative idea by Hamilton in this argument, nor does it express the "impotency of thought" as Hamilton asserts in his Law of the Conditioned. We see that the mind thinks a positive infinite space as a presupposition of any finite space, according to the first view which Hamilton describes. And over against this first view he shows that imagination cannot get this infinite space into a finite image or picture.

It seems to us at this time incredible that any person of reputation in psychology could ever have set up such a law and claimed it as a valuable discovery (Hamilton says of it: "If I have ever done anything meritorious in philosophy, it is in the attempt to explain the phenomena of these contradictions," etc.). But the fact remains. Hamilton deceived himself, and his disciple Mansel spent his life in undermining the intellectual foundations of faith. Herbert Spencer adopted the doctrine from Mansel in order to overthrow what he calls "ultimate religious ideas," such, for example, as self-existence and an eternal first cause. If the ideas infinite and absolute are unthinkable, it is true, as Spencer teaches, that "the fundamental conceptions of rational theology are thus self-destructive." Spencer says:

> Self-existence necessarily means existence without a beginning; and to form a conception of self-existence is to form a conception of existence without a beginning. Now, by no mental effort can we do this. To conceive existence through infinite past time implies the conception of infinite past time, which is an impossibility.

But Spencer was not consistent. He found it convenient to use the Hamilton-Mansel doctrine against theology and silence the clergy who found metaphysical difficulties in the theories of natural science. But Spencer himself in his *First Principles* reproduces the arguments used in dogmatic theology in his demonstration of "ultimate scientific ideas." He makes them inconceivable in religion, but quite conceivable in science. He offers a metaphysical proof of the compressibility of matter;[1] again he proves the indestructibility of matter;[2] he proves the persistence of force;[3] he proves *a priori* that "mental energies as well as bodily ones are quantitatively correlated to certain energies expended in their production, and to certain other energies they initiate;"[4] and he proves, likewise *a priori*, that vital movements, thoughts, and feelings have their origin in persistent force. Spencer calls persistence of force "the sole truth which transcends experience by underlying it."[5]

Here he has entirely forgotten his polemic against self-existence, as quoted above:

[1] *First Principles*, p. 51. [2] *Ibid.*, p. 241. [3] *Ibid.*, p. 254. [4] *Ibid.*, p. 284. [5] *Ibid.*, p. 258

> To form a conception of self-existence is to form a conception of existence without a beginning. Now, by no mental effort can we do this. To conceive existence through infinite past time implies the conception of infinite past time, which is an impossibility.[1]

That is to say, any ideas which imply infinite past time are inconceivable, and hence they are mere words to which no possible thought can correspond; or, rather, we should say they are not ideas, but words. But persistence of force implies infinite past time, and hence Mr. Spencer's "sole truth which transcends experience by underlying it" is a mere word without any possible thought corresponding to it. And so the indestructibility of matter or force, or of anything else, implies existence thru infinite future time. And to deny originating causality to the human will implies an infinite series of antecedent forces, and an infinite series is inconceivable; hence Mr. Spencer might have argued from this with equal force that the will necessarily originates a new causal series, and that any causal series must originate in a first cause, because the opposite is inconceivable.

This somewhat prolix examination of the doctrine of the unknowable, as taught by Hamilton, Mansel, and Spencer, is called for here because anyone who wishes to form an opinion as to the philosophical merits of Herbert Spencer encounters this Hamiltonian law of the conditioned at every step.

No one claims that Spencer added to science any new discoveries. His claim rests on the establishment of a philosophical basis for science. The Spencerians, in general, have intrenched themselves on this ground against theological attacks, and equally in defense of their scientific dogma of a mechanical evolution of the world of things and events without the intervention of causal self-activity either as a first cause or as a causal free will of living beings.

That such a preoccupation of the mind by a fatalistic chain of causation conducts to a new view of education has been made clear, not merely by abstract reasoning, but by the history of education itself the past fifty years.

Herbert Spencer, as we have seen, early in his career made a contribution to the literature of education in which he challenged the course of study as he found it in operation in the schools of his country, and he proceeded to lay down the laws by which a better course could be formed. In general, he adopted the same principle as Rousseau, namely, that of the return to nature; but with him "return to nature" means the study of natural science, and not the return to a state of nature; natural science should be the chief subject of study. The highest division of natural science, as he understands it, is sociology; next to it is biology.

The education that he proposes he tells us is for the purpose of complete living. Each child should be brought to school to learn the art of complete living. What is Spencer's definition of this art of complete living? With him education is something useful for showing how to take care of the body and how to perform the lower social functions—the preparation of food, clothing, and shelter. The first education, according to him, is not that which relates

[1] *Ibid.*, p. 31.

to man's spiritual life and to the preparation of man to understand the view of the world entertained by his civilization; that would be the religious ideal and the social ideal. "The first knowledge which man should seek is the knowledge which goes to *direct self-preservation.*"

To test this, suppose, on the other hand, the definition of complete living to be the elevation of each individual into participation in the life and experience of his race. Then each one would find complete living to involve the initiation into the civilizations of the past that furnish the elements out of which our own civilization is formed: the manners and customs of men, their views of life and the world, the matters of right conduct toward one's fellow-men, so that one may live with his fellows without quarrels and hatreds. This would seem to be the knowledge which would lead to direct self-preservation. If one cannot combine with his fellow-men in such a way as to co-operate with them, and assist them in producing a reasonable result—if his behavior toward his fellow-men is such as to destroy the works of their hands, he will force them to turn their endeavors against him, and the result will be his destruction.

Morals and religion relate to this kind of knowledge of how to behave toward one's fellow-men. They are the best means of self-preservation. But Mr. Spencer thinks that the first business of the child is to know physiology. The second step in knowledge, according to him, would be the selection of a vocation or trade and the mastery of the means of livelihood. This leads to his third step, namely, to training in citizenship; and the fourth and last of the studies which the schools should encourage includes literature and art, and whatever belongs to relaxation and amusement—these to be studied in the leisure of later life, as being of only minor importance. But Aristotle characterized man as the symbol-making animal. Human nature has to be expressed by symbols. The poets of the people set up and describe in symbols the ideal which makes civilization possible. Literature, according to this, furnishes the most essential branch of education, in so far as its function is to help the child understand that ideal; it assists the child to understand human nature, to understand the motives of his fellow-men. Without a knowledge of human nature the child will become misanthropic; he will think that everyone's hand is against him, and it will result that his hand is against his fellow-men. In whatever man does in work or play he expresses in some way his ideals. The child in school should be taught the art of understanding the symbols which men have made to express human nature.

The church announces the divine plan of the universe; the fundamental ideal by which all things are to be understood; the final standard by which all things and events are to be measured. This is the most educative of all institutions, because the person who harbors a religious ideal puts himself into the process of applying its standard to every experience of his life.

The school has a narrower function, but a very important one; it must

give to the child a knowledge of those instruments or conventionalities which make possible for him the acquisition of human learning by means of his own efforts. The school teaches consequently the arts of reading and writing and arithmetic; the technical terms of geography and mathematics and history; the methods of study in the various departments of human learning. It teaches incidentally the kind of behavior which enables the pupil as a member of the school to aid the work of the school as a whole, and enables him to get the benefit of its instruction. Regularity, punctuality, silence, and industry make possible the concerted action of the school, and make possible the aid of the individual by the teacher and by the class.

In the course of three or four years in the elementary school the child will add to his own the vocabulary of geography and arithmetic, many technical words from other sciences, and the most important words and phrases of literary writers who have written intense passages describing situations of the soul and explorations of thought which may be understood by children and uneducated people. These situations and thoughts which before he had no means of expressing, and hence no means of objectifying to his mind now become utterable, and to a great extent thinkable, by the child who reads in the school readers. The writers who hold their places in literature have seen nature from a point of view different from that of the child, and they have presented their thoughts in gems of literary style. Such gems of style have been explored and collected by compilers of school readers, and the child has a collection numbering some two hundred of what is best in the literature of the language. Every one of them adds to the child some insight and gives him the power to express it. Literature lifts up the pupil to the window which looks out upon human nature and discloses the motives which govern the actions of men. It shows how these actions begin in mere feeling; by and by these feelings become clear ideas and then convictions; lastly they become actions.

Literature gives us this, the most important of all intellectual views, and yet Spencer puts this third study of the elementary school last among the items of knowledge of most worth. After learning all that science has to give, after learning one's trade and the care of his body, Spencer would permit literature and art—"if there is leisure for it." He can see nothing except idle amusement from this window of the soul. But the philosophic educator, the man who studies scientifically, will readily see that literature is the greatest educator that we have. Newspapers, periodicals, and books, with pictures of human life and the motives governing our actions, go to make the public opinion which rules in an age of freedom; only tyranny and absolute despotism can exist where public opinion is not based upon free discussion and a true insight into the motives of one's fellow-men.

In the light of a study after the manner of biological research, we see why school education has formed for itself the course of study as it is. We see also how hopeless is a crusade against this course of study with the light which

Herbert Spencer throws upon it. Not knowing why the unconscious minds of the directors of education have taken the line followed in secondary and higher education, he takes for granted that there is no adequate reason for it, and proposes to abolish their work entirely. But it is evident that his inventory of our civilization is an utterly inadequate one; he omits from view the most important of all elements of human nature. He does not see that literature and art, exclusively devoted to the portrayal of human nature in its transmutation of feelings thru thoughts into deeds, are necessarily the central branch of study in the school education thruout its entire course. It does not occur to him to consider the method of his favorite science, biology, and he therefore does not see that Latin and Greek and the Hebrew oracles are in our education a study of the embryology of civilization, just as the study of growth of animals and plants as eggs and seeds furnishes the explanation of their development and shows the present trend also—for embryology is prophetic as well as historic. In secondary education we begin to come to the study of this spiritual embryology. In the higher or collegiate education we come to the comparative method of research; each branch is more or less studied in the light of its own history, and each branch is studied in the light of the other branches in the course of study. In a word, the philosophy of each subject is learned.

Educators, it is true, have adopted the course of study as it exists, not so much by a rational investigation as by an unconscious selection prompted by a blind impulse. But Herbert Spencer should have investigated and discovered its purpose, which is a far deeper one than he has thought out, when he advocates its overthrow for the sake of knowledge that leads to direct preservation. Had he been studying the habits of bees and ants, he would have taken for granted that these habits have a deeper explanation than what he would expect to find in the consciousness of those insects. It increases our surprise, in fact, when we remember that Spencer as well as Darwin searched for the explanations of the habits of men in reasonable precautions adopted in prehistoric days, and whose rational purpose had long since been forgotten. He supposed, in fact, that Latin and Greek had been useful once as the language of learned men, and that these branches had been retained in the course of study much as the habits of former days had been retained when their conscious purpose had long since ceased to exist.

In another direction than education we are bound to make a grateful recognition to a positive service of Herbert Spencer. From the beginning he has insisted on the value of science as organized knowledge rather than mere information. In his illustrations of universal progress he made this fertile suggestion, that science may be called an extension of our perceptions by means of reasoning. And again he says that "undeveloped science [mere information, mere unorganized knowledge] is qualitative prevision—developed science is quantitative prevision." That is to say, mere experience enables us to anticipate events to some extent, but accuracy can come only of

organized experience made systematic by means of the introduction of mathematics.

I doubt not his autobiography, when before us, will increase our high admiration and love of Herbert Spencer as a man, as well as instruct us more directly in all that was really positive in his contributions to the philosophy of science.

II. HERBERT SPENCER'S FOUR FAMOUS ESSAYS

JOHN W. COOK, PRESIDENT OF NORTHERN ILLINOIS STATE NORMAL SCHOOL, DE KALB, ILL.

It is more than forty years since the Appletons first presented Mr. Spencer's four famous essays on education to the American reading public. They had appeared in British magazines, and thus were not entirely unknown in this country. Their titles are familiar to you doubtless: (1) "What Knowledge Is of Most Worth?" (2) "Intellectual Education;" (3) "Moral Education;" (4) "Physical Education."

When they appeared, the Education Act of 1870 was ten years in the future. England was at the rear of the procession of modern states, so far as any organization of public education was concerned. It was not this fact that inspired the essays, however; for the *laissez-faire* attitude of the government in this particular was in entire harmony with the political philosophy of Mr. Spencer; and nowhere does he make a plea for greater activity on the part of Parliament. It was the unphilosophic method of the existing schools that aroused his opposition and that explains his biting criticisms. His own education had been so free and individual that it was a protest against the stupid conservatism of the masters; and it is surprising that he remained so long silent in the presence of practices which he so unqualifiedly condemned.

England has had a hard time with this problem of popular education. Ecclesiasticism has so interpenetrated the national life that the separation of church and state is nominal rather than actual. The Toleration Act secured unquestioned freedom of worship, with some social handicaps; but, while the only public education that France will tolerate is secular, the English public has never seriously considered it. And this applies to the dissenters as well as to the Establishment. The religious question has been the perplexing problem ever since Lancaster opened his school for poor children, about the close of the eighteenth century, and introduced his ill-conceived monitorial system to the world. He declared for "religious but undenominational" education. While the first word suited the public taste, the second was unpalatable. Dr. Andrew Bell represented the protest of the Anglican church. Each class was jealous of the religious influence of the other; as well try to mix oil and water. So they divided the education of the English youth between them.

Of course, the schools were poor. How could they be otherwise? There were no training schools for teachers; particular religious affiliation was the first condition of employment; tradition, with its iron rule, was the infallible guide; and every communicant, Anglican or dissenter, was a minute man and ready for the skirmish line on the warning of the leaders. They were bad enough, no doubt. Certainly this critic handled them without gloves, and in a fashion that always draws a crowd. In consequence, the essays are good reading. They raise a clear and unmistakable issue. No one else has done it in so masterly a style. They bring their author into close touch with the schoolmaster, and make so noteworthy a contribution to pedagogical literature that to confess ignorance of them is to acknowledge unfamiliarity with what every fairly informed teacher is assumed to know.

It is to the first of the series that the sharpest objections have been leveled; and properly so, for it attempts to settle the most fundamental of educational questions. While method can never be a matter of indifference, the content of the course of study is of the supremest importance. It is often said that it is not so much a matter of importance as to what one studies as to the way in which he addresses his mind to it; but this is an exaggeration of the value of method. There are certain kinds of knowledge that are indispensable, and no refinement of method can ever take their place. You have listened to a protest against the ruthless manner in which the humanities have been set aside in Mr. Spencer's analysis. I am in no small degree of sympathy with the view to which you have listened. I am not disposed to take the author of the essays altogether seriously, however.

With all of its acuteness, it seems to me that this essay must be denied a place in Spencer's philosophical writings. It lacks the judicial attitude. One seeks in vain for that disinterested holding of the scales, that unbiased estimation of the different departments of human knowledge, that should characterize one who attempts to speak the last word in summing up the hot contentions of rivals who have passionately pleaded for their opposing causes. He is the advocate rather than the judge; the strenuous reformer, who feels the necessity of an overstatement of his view and an understatement of the value of existing conditions. He employs the torch rather than the winnowing fan, and follows the lead of the revolutionary Rousseau rather than that of the devout and reflective Comenius.

Keeping this view as a perpetual footnote, and as at least a partial protection against the dominating influence of the author's overmastering genius, the essay must be regarded as having immense value. In one sense it indicates a return to the Renascence ideal, for it manifests an idolatry of knowledge. If we substitute science for the humanities, we may imagine ourselves listening to the panegyrics of John Sturm, the German Cicero. Of course, the intense utilitarianism would prove a quick corrective. There is the same incapacity to understand the limitations of the child that is manifested by all of the reformers. Locke and Rousseau certainly underestimated the

ability of the child yet under twelve, and even Pestalozzi overestimated it. Spencer is as far afield in the latter particular as the old classicists were. He also attaches an exaggerated value to knowledge as related to the conduct of the young. If his contention were true, the reformation of the world could be successfully accomplished by the schoolmaster.

But one thing the essay has done: it has shown that the sciences must never be denied recognition, and generous recognition, in the course of study. Spencer has stated the weaker side of the argument. He has slighted the pedagogical significance of his contention in urging its economic claims. Many of the subjects which he champions lie in the child's familiar world. He presses against them every hour of his waking life. He realizes their reality, and they never take on the conventional or artificial aspect of much that we attempt to teach him. He can assimilate them. Spencer is by no means the first to see this truth, but he has approached it from a new point of view. We may be impressed afresh by this vital truth, while we smile incredulously at the idea of instructing youth in matters of such remote interest as the bringing up of a family. But I cannot hope to do more than to offer the faintest suggestion in the brief space allotted me.

The remaining essays are not characterized by the radicalism nor by the originality of the first. They resay in an admirable manner much that has already found utterance in the literature of the innovators. The best thing they do is to hold clear and white before the reader the truth which Pestalozzi struggled so hard to express in his theory, and especially in his practice: "*There is a certain sequence n which the faculties spontaneously develop, and a certain kind of knowledge which each requires during its development; and it is for us to ascertain this sequence and supply this knowledge.*"

Spencer would therefore turn upon the problem of education all of the developed knowledge and acumen with which scientific culture has equipped the race. What he so superbly urged upon parents and teachers forty-four years ago is doubly imperative now. The age is essentially scientific. This is but another way of saying that educated mind has stripped itself of the last vestige of that supernaturalism which has made men cowards and kept them so thru all the long cycles of evolution. The fundamental postulate of science is also the broad foundation of religion. The conception of a splendid unity is slowly forcing its way into the common consciousness. Science is only another name for that unfolding revelation that discovers reason as immanent in all of the phenomena of the material and spiritual world. Education is the oldest of the arts and the newest of the sciences. For centuries it was left in largest part to blind imitation. At last it has caught the attention of the masters of thought. Spencer declares that "the subject which involves all other subjects, and therefore the subject in which the education of everyone should culminate, is the theory and art of teaching." Who has placed a higher value upon the application of the choicest intelligence to the instruction and training of the young? His reiteration of Rousseau's

familiar doctrine of the employment of the law of natural consequences in corrective discipline is as timely today as it was in the eighteenth century when the French genius gave it to the world in the pages of his charming *Émile*. His declaration that the aim of education is the production of a self-governing being has peculiar force when addressed to a people who have established a government upon the principle of self-direction, and whose hope for its perpetuity rests upon the conviction that thru suitable education a race may be developed to whose hands may be intrusted with safety the priceless jewel of political freedom.

It was peculiarly fitting that the man who attempted the prodigious task of producing a complete system of philosophy should have left to his fellowman his ideas of the kind of education that in his thought must be employed to secure that progressive development thru which in the processes of evolution the great problems of life are to find their solution.

III. HERBERT SPENCER'S INDIVIDUALITY AS MANIFESTED IN HIS EDUCATIONAL THINKING

W. S. SUTTON, PROFESSOR OF THE SCIENCE AND ART OF EDUCATION, UNIVERSITY OF TEXAS, AUSTIN, TEX.

The educational world is greatly indebted to more than one outsider for valuable criticism and direction. The beneficial influence of Rousseau's *Émile*, despite its many palpable absurdities, cannot be easily overestimated. Montaigne, and Bacon, along with other men who were not practical teachers, have contributed in no small degree to the art, as well as the science, of teaching. Herbert Spencer also finds a place, and a commanding place, among this class of man's benefactors; for the fact that, when he was only seventeen years of age, he served as a supply-teacher for three months does not justify us in enrolling him in the ranks of the schoolmaster.

In this brief paper it is obviously impossible to discuss many of the important questions in education upon which Spencer has written with so much vigor and persuasiveness. I have, therefore, decided to invite your attention to only one topic, "Spencer's Individuality as Manifested in His Educational Thinking."

In dealing with school problems, as with those in other fields of thought, he was singularly free from the influence of traditional opinions, and was at the same time little moved by the beliefs of his contemporaries. In his last work, published in 1902, is found this sentence, disclosing a marked individualistic type of mind: "Early in life it became a usual experience for me to stand in a minority—often a small minority, sometimes approaching a minority of one." Quick, in his *Educational Reformers*, very properly devotes a chapter to Spencer, in whom are to be found the essential attributes of leaders in reform—ability, disposition, and courage to expose error, however old and well-beloved, and to champion the truth however new and unpopular.

The four essays on education which Spencer contributed to British magazines in 1854, 1858, and 1859 are almost fierce in denunciation of the educational theories and practices of his times. It is no wonder that many conventional schoolmen in the English-speaking world read his philippics with mingled feelings of disgust and dismay. If Spencer was right, they were wrong; if his teaching should triumph, theirs would go, and they likewise. Teachers of the classics especially looked upon him as the chief of the Philistines, and with tongue and pen sought to punish him for what they called his pedagogic presumption and wickedness. It is believed (and I share the opinion) that his estimate of the value of Latin and Greek was false; that he did not accord to the languages and literatures of the ancient Greeks and Romans the high culture-value they actually possess. It is thought, furthermore, by some eminent educators, our own United States Commissioner of Education among the number, that Spencer's conception of the educational value of the fine arts—including literature, the noblest of them all—is not to be justified upon grounds either *a priori* or *a posteriori*. Still other objections are urged against his conclusions with respect to what knowledge should find a place in the instruction of children and youth; but, in spite of the floods of criticism that have swept over his essay on "What Knowledge Is of Most Worth?" the unprejudiced student of educational history will not fail to honor him for his valiant championship of the cause of natural science. It is because of the work of Spencer, Huxley, Agassiz, Eliot, and men of like minds, that the studies pertaining to the natural world have at length gained admission to the charmed circle of the liberal arts. Even in our own day are to be found educated men who yet regard these studies with indifference or distrust; but a half-century ago Spencer was not far from speaking the literal truth when he said:

> Had there been no teaching but such as is given in our public schools, England would now be what it was in feudal times. That increasing acquaintance with the laws of phenomena which has through successive ages enabled us to subjugate Nature to our needs, and in these days gives the common laborer comforts which a few centuries ago kings could not purchase, is scarcely in any degree owed to the appointed means of instructing our youth. The vital knowledge—that by which we have grown as a nation to what we are, and which now underlies our whole existence—is a knowledge that has got itself taught in nooks and corners; while the ordained agencies for teach ng have been mumbling little else but dead formulas.

Again, he was not wholly wrong, tho perhaps not altogether just to the traditional curriculum, in the closing paragraph of the essay, in which science is lauded for both its disciplinary and its practical value:

> Paraphrasing an eastern fable, we must say that in the family of knowledges, Science is the household drudge who, in obscurity, hides unrecognized perfections. To her has been committed all the work; by her skill, intelligence, and devotion have all the conveniences and gratifications been obtained; and while ceaselessly occupied ministering to the rest, she has been kept in the background, that her haughty sisters might flaunt their fripperies in the eyes of the world. The parallel holds yet further. For we are fast coming to the *dénouement*, when the positions will be changed; and while these haughty sisters sink into merited neglect, Science, proclaimed as highest alike in worth and beauty, will reign supreme.

The *dénouement* has been reached, but with a different result from that prophesied by Spencer in 1859; for neither science nor the classics nor mathematics nor philosophy, nor any other subject, is now allowed to exercise dominion over her sister-subjects, or even to display aristocratic airs in their presence. Thanks to the characteristic spirit of this age, there has been firmly established, not only democracy among men, but also democracy among studies, including even the science and art of education.

From what has just now been said one would conclude that, in his plea for the teaching of science, Spencer refers to natural science alone. With him, however, "science" is a much more comprehensive term, including the new subjects (the natural sciences), and also the old subjects, but the old subjects so transformed by rational thinking as to render them practically new. For history, language, and other human-nature subjects, as he found them, he had no word of commendation whatever, strenously insisting that only thru the understanding of the science of these subjects can results in any wise desirable be attained. What he means by knowing the science of a subject he expresses in many different phrases, some of which are here given: (1) Knowledge of realities; (2) knowledge of the constitution of things; (3) knowledge of the content of things, not of mere symbols; (4) organized knowledge; (5) rational knowledge; (6) knowledge of general truths; (7) knowledge of fundamental principles, or laws—with all of which ideas the modern conception of education is in hearty accord. He nowhere better sets forth his view with respect to the dominating spirit of science than in this description of the scientific man:

> While towards the traditions and authorities of men its attitude [the attitude of science] may be proud, before the impenetrable veil which hides the Absolute its attitude is humble—a true pride and true humility. Only the sincere man of science (and by this title we do not mean the mere calculator of distances, or analyzer of compounds, or labeler of species; but him who through lower truths seeks higher, and eventually the highest)—only the genuine man of science, we say, can truly know how utterly beyond, not only human knowledge, but human conception, is the Universal Power of which Nature, and Life, and Thought are manifestations.

Herbert Spencer, not content with attacking the traditional curriculum, pleads vigorously for reform in the theory and practice of the several phases of education. In place of ignorant, if not wicked, neglect of training the body, he prays for scientific physical education; in place of arbitrary and artificial means of moral development, he asks that rational and natural plans be adopted; and in place of the old-time principles of authority and pain in educating the intellect, he advocates with convincing eloquence the doctrines of self-activity and interest. In these several departments of education he called upon men everywhere to repent, and he may not improperly be called the educational John the Baptist of the nineteenth century.

But some school superintendent or college professor who finds, for reasons familiar to us all, his tenure of office more or less precarious, may retort that it is very easy for a great layman like Spencer to play reformer. The school-

master, on the other hand, must needs be a more timorous soul. He cannot afford to break with his environment, especially with that part of it which includes the board giving him employment, for, if he does, another locality is most probably added to the itinerary of his professional life. It is not to be disputed that the teacher has long been extremely diplomatic, not to say lacking in nerve, when brought face to face with progressive measures. It is none the less his business to cultivate that open-mindedness to truth and that courage of conviction characteristic of Spencer; for personal independence is an unmistakable attribute of manhood, and the first great qualification of the teacher is that he be a *man*. Of course, in manifesting his academic freedom and in laboring for reform, it is by no means necessary that one abandon the sense of the righteous opportunist, or the speech and the behavior of the well-bred gentleman.

Again, it may be suggested that Spencer, having neither wife nor children, could well afford to stand on the "firing line" of educational reform. Death under such circumstances would not involve unoffending victims. In reply to this view, it might be said that, if a man love house and lands, wife and children, more than he loves truth, he is not made of the sterner stuff the reformer needs. To him who falters in the discharge of professional duty, let these words of the Psalmist bring consolation and courage: "I have been young and now am old; yet have I not seen the righteous forsaken nor his seed begging bread." Let him, furthermore, remember that courage is born of doing things, and that the world is now looking, as never before in the history of the race, for men neither unable nor afraid to think their own thoughts and then to act upon their own responsibility.

Time is left to call attention in briefest word only to the fact that Spencer's individualistic spirit was so intense as to prevent him from tolerating, or even seeing, the natural trend toward social unity. When but twenty-two years of age he published in the *Nonconformist* an article emphatically condemning the education of the people as a function of government. In *Facts and Comments*, published in his old age only a year before his death, he reaffirms his belief that state education is both unjust and unwise. This view is sadly out of harmony with that of the modern pedagog, philosopher, and statesman. If there is any one sign of our times more significant than any other, it is that the state, with ever-increasing activity, is to provide for all the people genuine education, which involves far more than intellectual training (a fact not taken into account by Spencer), and which has for its supreme purpose the enrichment of institutional life thru the generous development of the free, self-active spirit of the individual. In ancient Sparta man belonged, body and soul, to the state, there being two inevitable results—the atrophy of the spontaneity of the individual, and, in consequence, the final overthrow of the state itself. In the eighteenth century individualistic sanctions became sovereign, and the individual, as well as the state, was compelled to endure the Reign of Terror. The modern state, realizing the necessity of both

individual strength and social solidarity, seeks, thru proper educational means, to harmonize these two forces, which are at times apparently antagonistic, but which, in reality, are mutually helpful. Strange, indeed, that so plain a lesson in history did not reveal itself to the great mind that so convincingly taught the world the value of the term "Evolution"!

By way of summarizing this brief paper, these two supplementary principles are submitted as worthy to guide the practice of modern education:

1. The sanctity of the individual human being is to be kept inviolate.

2. The law of social service—a law opposed not to individuality, but to individualism—conditions the spiritual progress of humanity.

IV. HERBERT SPENCER AS AN EDUCATIONAL FORCE

A. E. WINSHIP, EDITOR OF THE "JOURNAL OF EDUCATION," BOSTON, MASS.

Herbert Spencer was the greatest educational force of the latter half of the nineteenth century. As an individual opinion this would have no significance but it is as near an official utterance as is possible for the United States government to deliver on such a question. In the Congressional Library in Washington, our noble shrine, the government has placed the names of ten educational leaders selected from the world's history. Only one of these was chosen from the latter half of the nineteenth century, only one was alive when his name was blazoned on the roll of honor. That was Herbert Spencer. In the presence of such a fact, it matters little what we may say here tonight by way of criticism. The edict has gone forth from an authority higher than that which now sits in judgment.

This honor is all the more significant when we remember that he was not identified with any institution; that he failed to create as a genius, to develop the skill of an artist, or perfect the power of a master. Germany gave the world more than one educational genius in his day. Sweden produced more than one pedagogical artist. France made more than one attempt at the making of a master; but Herbert Spencer was a greater force than genius, artist, and master combined.

What Bushnell, Beecher, and Brooks were in theology and in ecclesiastical courage, Spencer was in education. His was the fascination of personality in phrasing, of relish in thinking. In whatever he thought or said there was a nervous impulse that set the schoolmen of the world aglow with interest in proportion to the spasms created among the philosophies before which he did not bow.

What Darwin and Huxley were in science, Spencer was in education. He was an evolutionist in spirit, tho not as a scientist; in the social order rather than in the animal kingdom, in human nature as much as in nature.

What Sheridan was in the Shenandoah, Spencer was among the school

men who awaited a leader. He was never an architect, but a fountain of heroic inspiration.

Spencer was a literary man before he was a philosopher; a writer before he was an educator. He never knew the masters as a worshipful disciple. He bowed before no master, for he had been trained by none. His training was as a railroad engineer, and for eight years he threaded railroads over the British Isles. Thus he came to philosophy unbiased by tradition, and was able to think independently, to project ideas as he had projected railroads. This prevented the customary arrested development which afflicts so many philosophers, who, when once under the spell of a scheme of thought, are unable thereafter to think of or experience anything without being class-conscious from the standpoint of their theory.

It is evidently a satisfaction for anyone to have the conceit of seeing everything in time and eternity as fitting into a philosophy as clear as crystal to themselves, as hazy as the milky way to everybody else; but such a state of mind often operates as an undertow, carrying one backward from the shore whenever he attempts to land. Spencer was always being carried forward on the crest of a wave, being a part of its foaming billow as it broke upon some new shore.

He was not always right, and was rarely consistent; but he was always getting somewhere, was always attractive, always alert.

He would have lived and died a railroad engineer, and never have disturbed the equanimity of the self-satisfied philosophers, had he lived in America, where railroad building never ends; but in great Britian the end of the railroad boom came early in his career.

He could be enthusiastic over the projecting of railroads into new parts, but he could not be content to play the part of a repairer of roadbeds, or of laying side-tracks of steel. Thus he abandoned the profession for which he was trained, and suggested new tracks for philosophy and pedagogy; and our mighty educational locomotives are freighting new philosophies into new fields because he refused to be a repairer of old lines of thought or a builder of side-tracks for the philosophies of Germany and Greece.

Every flush of life and flash of light that reinvigorates the university of today is due to the rays that purpled the dawn when Herbert Spencer said: "Let there be light in every nook and corner of the educational world."

V. HERBERT SPENCER AS A PHILOSOPHER

W. ROSE, PROFESSOR OF THE HISTORY AND PHILOSOPHY OF EDUCATION, UNIVERSITY OF TENNESSEE, KNOXVILLE, TENN.

Herbert Spencer gave his life, with peculiar devotion and singleness of purpose, to the cause of science. He has the rare distinction of having completed the task which he set for himself. It is less than a decade since his

last volume was given to the public; and yet he is a recognized authority in no departm nt of science. He has never been an authority in science. In fact, he was not a scientist in the sense in which Darwin was a scientist. Not from nature, but from books, he derived his facts; and upon this experience taken at second hand he based his broad generalizations. Darwin repeatedly expressed regret that Spencer had not been taught to see; while Spencer in turn was unable to sympathize with Darwin's lavish expenditure of time and energy with meaningless details. Clearly, Spencer could not become an authority in any department of science, when he lacked the methods essential to the scientific specialist.

But it may be said, and with justice, that he should not be held responsible for failure to accomplish that which was not only outside his life-purpose, but in opposition to it. His interest lay in the direction of generalization rather than in that of special discovery and experimental verification. Following this interest, he deliberately chose the field of scientific speculation, and set for himself the tremendous task of synthesizing the whole of experience and stating it in terms of universal law. He was not a botanist, and made no effort to become one; but he formulated the law of evolution and illustrated its application to vegetable life. The genetic method has given us a new botany, and in the hand of the specialist is today giving us a continued revelation of the law of evolution in the plant kingdom.

But if, on the other hand, Spencer is to be ranked as a philosopher and judged accordingly, he fares no better. Of the deeper problems of philosophy he had not even an intimation. He assumes the order of nature, and assumes experience as a part of that order. The more fundamental problem of how such an order of nature is possible, of how knowledge is possible, Spencer's doctrine of evolution does not touch. The real problem of Kant and of Hegel did not exist as a problem for Spencer.

Then, when we take him on his own level, we find his first principles involving essential contradictions. He juggles, for example, with two systems of reality. Hume found it necessary to negate the reality of the world-order that he might identify reality with feeling. Spencer accepts both systems and passes from one to the other with the facility of an expert riding two horses. The critical student of the *First Principles* finds his chief difficulty arising from the confusion of these two opposing systems.

An example of this double dealing is found in his well-known theory of the Unknowable. After identifying the real with an absolute Unknowable, which should once for all preclude any further reference to it, especially on the part of a philosophy of experience, Spencer proceeds in a later paragraph to define the real as "persistence in consciousness;" and on the basis of this assurance informs us that the Unknowable is one, not many; that it is the causal energy on which phenomena depend and from which they spring; that it is omnipresent, persistent, unchangeable, etc., etc.; thus giving us, in Mr. Mill's happy phrase, "a prodigious amount of knowledge

about the Unknowable." Then a scrutiny of these attributes of ultimate reality reveals the fact that it is both static and dynamic. The Unknowable as changeless absolute becomes on occasion a causal energy with a succession of changes paralleled by a succession of changes among appearances.

These are a few examples of the fundamental inconsistencies upon which his system rests. These inconsistencies, however, are not surprising when we know that he was unacquainted with the history and the problems of reflective thought.

But while we thus frankly admit that Spencer is not an authority in any science, and that the fundamental principles of his synthetic philosophy do not bear the test of philosophic criticism, it remains, nevertheless, that he was a vigorous and independent thinker, and that he will occupy a prominent place among that group of men who in science and scientific speculation made Victoria's reign illustrious. In what, then, does his service to modern thought consist? Without attempting to be exhaustive, I will suggest two points at which his service has been conspicuous.

In the first place, his genius for broad generalization and his tremendous capacity for stating abstract truth in concrete form enabled him to bring together into one articulate system ideas, doctrines, domains of experience, which had developed independently and had stood apart. This synthesis of the sciences brought to consciousness new problems and new clues. The broader relations thus revealed by mutual cross-reference between phases of experience hitherto isolated gave to scientific activity at once a new stimulus and a new leverage. It is a significant fact that most of the young sciences just now manifesting so much of energy and yielding so much of promise spell their names with a hyphen; as witness physiological-psychology, psychophysics, physical-chemistry, etc. And not only have new sciences been born but old sciences have been rejuvenated by this interrelationship. It is a long count from the old botany, with its herbarium of abstract plants, its artificial descriptions and classifications, to the new botany, with its concrete living plant—a plant conceived as a member of a life-colony, a plant facing and solving the problems imposed upon it by the complex relationships of the environment, organic and inorganic, under which its life is being lived out. In like manner have not only the physical and biological sciences, but psychology and the social sciences, been quickened into larger life by this mutual co-operation, and the broader outlook which it yields.

Then, to the specialist in a given field there comes from this conscious kinship, not only the larger meaning, but a larger criterion of truth. For we demand that experience hang together. And in so far as the worker in a special field finds that his contribution dovetails into the whole system of experience, he feels added confidence in its validity. The functional point of view in psychology, for example, derives support from the fact that it is paralleled by present tendencies in mathematical theory, in physical theory, in ethics, logic, and epistemology.

These are bare suggestions of the significance for modern thought of the free interplay between the various phases of experience within the larger synthetic view. It is not here claimed for Spencer that this result is the product of his genius. It is not the contribution of any single man. I do think it safe, however, to claim for Spencer's synthetic philosophy that at this point it has rendered conspicuous service.

A second service to contemporary thought worthy of recognition Spencer rendered in formulating the theory of evolution, and using that as the unifying principle in his synthesis of the sciences. The notion of evolution is as old as Greek thought. In modern times Goethe had stated the law of development as progressive differentiation and subordination of parts in terms which strikingly resemble Spencer's own formulation. Hegel had given the logic of evolution and had applied it in a synthetic view of experience. The notion of development was in the air. But it remained for Darwin to demonstrate the theory as a working principle in biology, and for Spencer to formulate it, give it broad application, and make it current in popular as well as in scientific thought. These two men, supplementing each other in genius and method, have thus co-operated in establishing evolution as a working hypothesis in the domain of science, and have put every man, in whatever field of thought, under the necessity of reinterpreting his world from this point of view. Evolution once established as a general point of view, the genetic method is inevitable. This method in the hand of the specialist has developed into the most effective instrument of contemporary science.

We should have had the genetic method without Spencer; but, again, our recognition is that of conspicuous service.

Finally, it seems peculiarly fitting that this body should pay tribute to the memory of Herbert Spencer; for nowhere, perhaps, has his influence been more pronounced than in educational thought and practice. This influence has come not so much from his *Essay on Education* as from his system of thought as a whole. Here again it is the genetic method and the larger synthetic view that have been effective. It is easy to criticize his evaluation of classical culture, of the national tongue, the national history, the national literature; it is equally convenient, on the other hand, to commend his crusade against verbalism and education as a system of cram; to recognize his restatement and emphasis of the Pestalozzian principles of interest and education thru self-activity. But this indirect service to which I refer has affected education in a much more fundamental and organic way. My illustration of the contrast between the old and the new botany, with change of terms, finds application here. The abstract child of the older psychology, with its equipment of abstract faculties to be artificially developed, has, in response to the genetic method and the larger synthesis, given place to the concrete child frankly recognized as a living organism, with a past and a future, carrying on its life-processes, like the plant, as a member

of a life-colony, and under conditions of environment which set for it practical problems to be met and solved. The entrance of this concrete child upon the stage has forced upon educational theory a tremendous expansion. When the child was primarily a thinker and education an intellectual affair, the problem was relatively simple. But now we must see the child as a marvelously delicate mechanism organizing for efficient response to stimuli; and in this process we are seeking rational control. Or, viewing him at any moment as a bundle of developing instincts, we must interpret these tendencies in the light of both their backward and their forward reference; must state them, on the one side, in terms of the animal series, as revealing their origin and organic significance, and, on the other, in terms of civilization, as revealing the child's destiny as free personality. Education thus becomes something vastly broader than applied psychology, in the older sense of that term; it is applied physiology, applied biology, applied sociology. The most hopeful sign, perhaps, in modern progress is just in this rescue of the problem of education from the narrower sphere of the pedagog's peculiar interests by making it the problem of dynamic sociology, which it is. The same method which is giving us the concrete child is revealing the law of social progress, and the child as the key to that progress. The child thus becomes the focal center of all social interests. And education, as self-conscious evolution, as rational control in the most complex phase of all development, becomes, in Herbert Spencer's own words, "the subject which involves all other subjects, and therefore the subject in which the education of everyone should culminate."

EDUCATIONAL PRINCIPLES FOR THE SOUTH

I

CHARLES W. DABNEY, PRESIDENT OF THE UNIVERSITY OF TENNESSEE, KNOXVILLE, TENN.

Social evolution, like everything else in the universe, is continuous. As the southern civilization of today is the product of that of yesterday, so the civilization of the future will be the outgrowth of that of today. The present educational needs of southern people arise from circumstances which to a large extent grew out of peculiar conditions in the past. The schools for which we strive must, therefore, be built by southern men and women on the foundations already laid and in accordance with the established principles of southern civilization.

In the old South there was a caste system of four general classes: the aristocracy of wealthy planters and slave-owners; the small farmers, living chiefly in the hills; the poor whites of the low country; and the African slaves. The number of the planter class is greatly exaggerated in the popular mind. The

body of the people belonged to the class of the small farmer, a sturdy yeomanry, who by energy and thrift sometimes broke into the upper class. The planter, however, domineered all classes, and to a great degree repressed the small farmer and the poor white man, filling the rôle of the feudal lord in his relation to his poorer neighbors.

We speak of the Civil War as a revolution, and it was a complete revolution of our whole life, political, social, and economic; but to the scientific student of history this cataclysm was only a phase of the regular evolutionary process, a necessary step in the development of our institutions. It has served much the same purpose in our social evolution that the French Revolution served in the development of the European peoples; it led us to form a new conception of the rights and powers of the individual, be he lord of the land, small farmer, poor white man, or negro. True it is that the southern conception of the rights of the individual is still far from ideal, but it is growing, and will continue to grow with the educational and economic improvement of the depressed classes.

The war not only freed the black man, it freed the white man as well. It made a way for the small farmers, liberated the poor white man from the bonds of a semi-feudal system, and established both for the first time in full citizenship. It also freed the minds and spirits of the aristocratic classes, and by throwing them upon their own resources made them a stronger and a better people. In setting free all classes of southern people the war cleared the way for the true democracy which will come when all the people are trained to the responsibilities of the new day. The old civilization, whose ruling class was an aristocracy of land and slaves, has given place to a political and industrial democracy with no ruling class. But herein lies our danger, and out of this fact grows the special necessity for a system of popular education which shall train all our citizens to think clearly and act fearlessly each for himself.

Now, this growing conception of the rights and powers of the individual is accompanied by a growing consciousness of his need of preparation for all his functions, especially for the performance of his duties as a citizen. Witness the great conventions of colored people like the one held recently at Tuskegee. Witness the political uprising of the poor white man a few years ago under the Farmer's Alliance and the Populist party. Witness, also, the great movement for better schools now stirring the whole South. The plain white man has awakened and is pressing for the rights of his child, and to him we now look as our chief supporter in this effort for the improvement of the schools.

The actual development of such a system of free public schools has been long retarded by the conservatism of the aristocratic class which refused to recognize the new individual and held as long as possible to old institutions and ideals. It has been delayed further by the poverty of the people, by the sparseness and consequent isolation of the population, and by the absence of roads and other adequate means of communication; but this new concep-

tion of manhood has now caught the mind of the plain man, and will soon give rise to a great new system of education, supported by all the people for all the people.

History teaches us that systems of education are even more dependent upon economic than upon political and social conditions. Political and social institutions are, in fact, largely the outgrowth of economic environment. It will help us, therefore, to get a better view of the situation in the South if we recall a few simple facts of its economic history.

The industrial organization of the old South was largely rural. A system of slave labor compelled the South to remain almost exclusively an agricultural section. It drove out all other labor, and so banished all manufactures except those of the plantations. Most of the simple arts and industries were represented upon the old-time plantation. The spinning and weaving houses, the wagon and blacksmith shops, the carpenter and cooper shops, were the factories of those days. They were also the industrial schools of the South.

As the white family was the only social unit, so the plantation with its slaves grouped around that family was the only industrial unit. Commercial centers there were, but there were almost no manufacturing towns. The old plantation was similar to the old English manor, a community in which the labor of the members supplied all their wants except the finer groceries, the broadcloth, the silks, and satins. My grandfather, an old Virginia planter, boasted that he ordinarily bought nothing except cotton, bar-iron, and wool hats.

In a society built on these foundations, education and all forms of culture developed along strictly aristocratic lines. Tho numerically in the minority, the wealthy planter, with his intensely individualistic ideas, was the controlling force politically and socially; consequently he alone determined the forms of education. He employed private tutors for his children, and sent the older boys and girls to the North for their higher education. In some cases several families might combine to support a school, but it was a private institution still, and the upper classes looked down on the common school as a thing beneath them. Some of the states had a few schools for the poor, commonly called "poor schools" or "hedge schools," which did little good even for the classes they were designed to benefit.

There were few teachers of southern birth in the country. It was a profession not highly thought of, and the tutors of the children were either wandering adventures, or young persons from the North who were sometimes ordered along with the fine groceries and silks. A letter from an old South Carolina planter to his factor in Providence inclosed a long bill of goods whose last item was: "One school marm, not too young or good-looking, who can teach French and drawing." The South was greatly indebted to the young "Yankee school marm" and to her brother, frequently a graduate of Yale, Amherst, or Williams; their office was duly recognized, and they rarely failed,

if they remained long enough, to attain to a high social position and to become devoted southerners. This service of the northern school-teacher was a broadening influence for both North and South, and I doubt not, if the author of *Uncle Tom's Cabin* had taught school for a period on a Georgia plantation, instead of in a Connecticut village, she would have greatly modified many statements in her famous book.

In such a society as this, with a population essentially rural and intensely individualistic, scattered over a country sparsely settled, without towns or any larger social units, it has taken a long time to develop the social spirit and the habit of co-operation, so necessary for the support of good public schools. When to these conditions was added the burden of establishing and maintaining a duplicate system of schools for the two races, side by side in the same village or neighborhood, the difficulties in the way of the public schools became greater than any people of equal power had ever faced. The struggle of the southern people with this problem will, when fully known, command the admiration of every student of history.

Let us next seek to learn something of the present educational conditions of the southern populations. In 1900, out of the 8,500,000 whites ten years of age and over in the eleven south Atlantic and Gulf states, including Tennessee and Arkansas, one million were illiterate. One-third of the illiterates of the United States are found in these states, which have, however, only one-fifth of the population. Of the 5,000,000 blacks in the same states ten years of age and over, 2,500,000 were illiterate. In the same states, of 4,400,000 males twenty-one years of age and over, 1,200,000 were illiterate. More than one-half of all the illiterate males of voting age in the United States live in the South. Disfranchisement can be only a temporary and partial remedy for this awful condition. We can never build a true democracy from this kind of material.

How about the children and their schools? In the same southern states there were last year about 4,000,000 white and 2,500,000 black children of school age. Sixty-two per cent. only was enrolled in the schools. Only 45 per cent. of the school population was actually in school eighty to ninety days. The reports of the superintendents show that the average child who goes to school at all stops with the third grade, which means that he barely learns to read and figure a little. One white child in every five is left practically illiterate, and one-half the negro children never really learn to read. No wonder that 24 per cent. of the grown people in these states, whites and blacks together, cannot read and write. Three terms of schooling, at best, is what we are giving the average child as preparation for citizenship in the great republic!

How, then, but by universal education shall we qualify the members of the democracy for the discharge of their duties? No selection of persons to be educated is possible. When you limit education to any class, you sow discontent over all the land, and the ignorant portion of the population simply

adds to the state's burden, rather than to its wealth and power. Besides, when we select a portion of the people to be educated, we are sure to neglect the very ones who most need training. In a democracy the free public school is the only efficient agent. There is no way to reach all those who need to be educated except by training all the children at the public expense.

Universal education by the state is the solution of the southern problem. This was the doctrine of Jefferson, the prophet of our American democracy, and this principle is now embodied in the constitution and laws of every state in the Union. It remains for us to carry out this doctrine in practice. Schools must be provided for all the children, both whites and blacks, and, when we once have the schools, we must have compulsory laws to put the children in them. This is the supreme duty of the day.

Four-fifths of the southern people live in the country. The vital question, therefore, is how to provide elementary rural schools which shall be within the reach of every child. Every other consideration is a minor one compared with this one of good elementary schools for the people of the rural districts. Matters of school legislation and organization, plans for consolidation and transportation of pupils, and other such details must be decided in accordance with local conditions. They need not be discussed here. The vital question for the South at this stage is that of more money for the schools. In schoolhouses costing $300 each, with teachers receiving an average salary of $27 a month, we are giving the children in attendance 5 cents worth of education a day for eighty or ninety days in the year. Georgia paid 6 cents a child a day to the teachers in her "poor" schools seventy-five years ago. So long as these conditions prevail the money for the schools must be a chief consideration.

The question as to whether the South should accept national aid in performing this national duty is an academic one at the present time, but since it has been recently raised by such authorities as the president of Harvard University at the North, and the president of the University of Georgia at the South, it may be well to mention it here.

Any plan of national aid should provide, not a largess for the South, but a consistent, rational plan for uplifting the retarded and depressed populations in all portions of the country. The people in some counties in Maine and in New York are as illiterate as those in counties in the southern Appalachians. This is truly a national problem, not one for the South alone; and we need, therefore, to take a broad view of it.

Some persons speak of national aid to the states for the purpose of popular education, as if it were aid from the outside which it would be humiliating, or at least unwise, to accept. It is a characteristically southern and a noble sentiment that suggests this idea. But do we southern people fully realize that we are an inherent part of the government of the United States, and that all matters of national concern demand national consideration and

assistance? Is not the national treasury our treasury? Is not the money in it our money, put there in part by us? Is not the negro as much a ward of the nation as the Indian? If the nation provides for the education of the Indian, this wild child of the plain, is it not under an even greater obligation to provide for the education of the negro, our fellow-citizen in these states? During the recent wars the South was deeply stirred by national feeling and took a large part in the struggle for humanity and the redemption of the Cuban people. When we give the blood of our sons to the nation in a service of war for aliens, may we not honorably accept the aid of the national treasury in this greater service of peace for our own children?

But some may fear that in national aid there lurks danger of federal interference with our state systems of schools. This, of course, we cannot permit. The right of the state to the control of its schools and all their affairs is a principle that has never been questioned in the national councils. Andrew Jackson himself favored the distribution of the accumulated national funds to the states for the purposes of education. There is a precedent already in the appropriation of national funds to the states for the support of their agricultural colleges and stations. No attempt at federal control of those institutions has been made or is likely to be made. When measures of national aid are actually proposed, if they ever are, our representatives will be sure to maintian firmly the rights of the states to control their schools thru their own officials in accordance with their own methods. It will be done in this way or not at all.

Methods can also be found to aid needy communities without paralyzing their powers, either of initiative or support. Assistance can be used in such a way as to arouse their initiative in improving educational conditions and in encouraging local support of the schools. National aid should be given in proportion to the needs of the people as shown by school population, illiteracy, and poverty, and in proportion to their sacrifices to help themselves. While we are helping the Porto Ricans and Filipinos to establish their schools, we should aid our own neglected peoples wherever they need assistance.

It is not a new Blair Bill that we want; we rejected that long ago, and I hope, for my part, that that particular measure may never again be brought forward, but that some plan may be adopted which shall make the wealth of the whole nation contribute to the education and general social improvement of all peoples who, by reason of their poverty, their isolation, their race or recent condition of servitude, or from any other cause, have not been able to take their place in the grand army of American citizenship, or to catch step with the march of modern progress.

With these principles accepted, we need not add anything on the subject of the education of the negro. Our belief in universal education necessitates a belief in the education of the negro, for it presupposes that every human being, white or black, has a right to be educated. God has a purpose in

every soul he sends into the world. The poorest, most helpless infant is not merely an accident, a few molecules of matter, or a few eons of energy merely, but a "plan of God," as Phillips Brooks has said, a part of the divine plan of creation, and as such deserves to be trained for its work. This, it seems to me, is the fundamental argument for a universal education—that every child has a right to a chance in life, because God made him and made him to do something in the universe.

Every intelligent southerner now believes that the right kind of education makes the negro a more thrifty, a more useful, a more moral, and a more law-abiding citizen, as it does every other man. Every southern state is now committed by its constitution and laws to the principle of negro education, and, in their legislatures and courts, they have, so far, successfully resisted all proposals to divide the school funds, or to reduce the resources of the schools of the colored race to the taxes paid by the people of that race. If we disfranchise the negro, it only makes more binding our duty to prepare him for the proper use of the prerogative of citizenship. In fact, the disfranchisement acts are all working to compel his education. The southern people will be fair to the negro in these matters. Any other course of conduct will not only dishonor, but will injure, their own race.

The chief question now is not the kind of education we shall give these people, whether exclusively industrial, or partly literary, but it is the simple elementary training of the people of a child-race to perform the ordinary duties of life and to become decent American citizens. It will be time enough to discuss the merits of industrial education, as against those of the higher education, when we have provided good elementary schools and teachers for the negro children.

With or without national aid, the southern people will find a way to educate the negroes. It is merely a question of time and methods; but we will do our duty to these our childhood friends, the laborers in our fields and in our homes. We people of the South have already led the African slave to heights which he never could have reached without our assistance, and so, in freedom, let us lead him on thru the school to character, usefulness, and prosperity. In the words of that splendid young hero and prophet of Georgia, whose statue stands here in these streets to remind southern men in all generations of a life spent for the salvation of his beloved land:

> Let us make the negro know that he, depending more than any other on the protection and bounty of his government, shall find in alliance with the best elements of the whites the pledge of safe and impartial administration. And let us remember this: that whatever wrong we put upon him shall return to punish us. Whatever we take from him in violence, that is unworthy and shall not endure. What we steal from him in fraud, that is worse. But what we win from him in sympathy and affection, what we gain in his confiding alliance, and confirm in his awakening judgment, that is precious and shall endure—and out of it shall come healing and peace.

II

CHARLES D. McIVER, PRESIDENT OF STATE NORMAL AND INDUSTRIAL COLLEGE, GREENSBORO, N. C.

[ABSTRACT]

Local taxation, better school supervision, and stronger local educational leadership are the three great needs of education in the southern states. One hundred and fifty dollars a year for school-teachers and less than five hundred dollars a year for county superintendents, on the average, tell the story of school inefficiency, and no elaboration is needed. Whatever other improvements are needed, and however desirable they may be, the length of the school term, and the salaries of teachers and superintendents, must be increased.

In order to discuss the question of educational needs in the South intelligently, the following facts and conditions must be kept in mind:

1. *Area.*—The area of the southern states is about 800,000 square miles —sixteen times the area of New York state.

2. *Urban and rural population.*—In all this territory there are only about twenty-five cities with a population above 30,000, and only 150 other cities whose population is over 5,000. Three states—North Carolina, Florida, and Mississippi—have no city in the former class, and four or five others have only one such city. Of the 1,800,000 people in North Carolina, 1,600,000 live in the country or in the villages of less than 2,000 population, leaving only 200,000 living in the cities and towns of more than 2,000 inhabitants. The proportion of urban population is a little lower in North Carolina than in the entire South. Mississippi is even more rural than North Carolina.

3. *Local tax exists practically in all urban and in no rural communities.*—In practically every community with more than 2,000 inhabitants a local school tax has been voted by the people to supplement the school fund provided by the state levy and otherwise, and the result is public schools in these communities that compare favorably with those in communities of similar size elsewhere; but probably not 5 per cent. of the *rural* communities in the South have voted a local school tax. There are comparatively few counties that have voted a special tax on all their property. At least six states have no county that has levied such a tax on all its property.

When it is remembered that wherever satisfactory public schools exist in this country, north or south, east or west, whether in urban or rural communities, from one-half to nine-tenths of the school revenue is raised by local taxation, the above conditions appear in their true light.

4. *The county superintendent.*—What is needed most urgently now is stronger men to lead the people in the rural sections to do what their neighbors in the cities and towns have already done. Unfortunately, ever since the Revolution, which was fought on a tax issue, the loudest-talking political leader has taught the people to hate the word "tax;" not any particular

tax, but just "tax." To persuade the people that the levying of *any* tax is a profitable investment demands more power than is possessed by the average county superintendent. The average salary of the county superintendent in several southern states is less than $300; the average in Georgia is $480. It ought to be said in this connection that there are some strong superintendents, and in their counties public schools are growing in favor and in strength; but $400 or $500 a year will not secure the services of a strong man for all of his time, nor the best service of the strongest man for even a part of his time. Men are now needed in these positions who can teach the truth that an industrious community may become rich by levying certain taxes for its own improvement; that taxation is one of the chief characteristics of civilization; and that the savage pays no tax. The adoption of local taxation for schools is the fundamental need of the South, and men must be secured who can persuade the people to vote this tax upon themselves. A persistent, tactful campaign alone can do this.

5. *Salaries and school terms.*—The fact that the average salary of the southern public-school teacher in the rural districts is only about $150 a year, and that the annual school term is only a little more than one hundred days, gives painful emphasis to all that has been said concerning the necessity for a local tax. There is nothing within sight of the audience in this hall which a dollar-a-day laborer would be allowed to work upon, except the brains of the people.

6. *Strong educational leadership thru county superintendents demanded.*—If strong superintendents could be secured for ten counties in each of the southern states, it would soon bring about a revolution in education in those counties, and their example would be followed by other counties. If the state legislatures, or if philanthropic funds now being invested in the South, could be used to bring about this result, the educational dividends from the investment would be enormous and almost immediate. I have seen the result of such an investment in one county. By special local aid the salary of a certain county superintendency was increased from $800 to $1,600, and an experienced superintendent of teachers was secured last July. Since he began his work, the annual school revenue of his county has been increased, by local taxes, voted, more than $3,000, and it is probable that within a year the annual school income of the county will have been increased by about $10,000, which is $33\frac{1}{3}$ per cent. more than it was when he took charge of the schools.

An able, tactful superintendent will conduct a constant campaign for local taxation, and in addition he will raise the standard of the teaching profession in his county, not only by examination of teachers and inspection of schools, but also by conducting a teachers' institute or teachers' school annually for several weeks for each race. The securing of strong county superintendents everywhere would be the surest method of training the teachers, white and black, who are destined to teach a large majority of the

children in the South for the next ten years. It should be remembered in this connection that the majority of rural school-teachers, and perhaps even of urban school-teachers, thruout the country have never attended a normal school. I will use Massachusetts as an illustration. According to the official report of that state in 1900, we find that only 43 per cent. of the public-school teachers, urban and rural, had attended any normal school, and only 36 per cent. had graduated at a normal school. In 1890 these figures were 35 per cent. and 29 per cent. respectively. This is very significant and pertinent when it is remembered that Massachusetts has a total population of nearly 3,000,000, with a rural population of only about *200,000*, while North Carolina has a total population of about 2,000,000, with an *urban* population of only about *200,000*. It must be remembered, too, that Massachusetts has thirteen state normal schools, and has had at least one normal school since the days of Horace Mann.

Until the term of the rural schools is at least eight months, most of the teachers employed in them will have had no normal training when beginning their work, and must depend for that training largely upon their county superintendents. The local tax necessary to secure an eight-month school term also largely depends upon the county superintendent's ability to lead a campaign among the people.

All this emphasizes the fact that the strategic point in the educational development in the public-school systems of the South is occupied by the county superintendent.

THE FACTORY CHILD

LAWTON B. EVANS, SUPERINTENDENT OF SCHOOLS, AUGUSTA, GA.

This is the day of problems in education. The city-school problem is solved, except the elimination of the personal equation. The normal-school problem is almost behind us. We are about saying the last word of what should be in the rural schools; and the problem of the negro has been discussed to a standstill.

There are three problems for the southern educators: that of the fields, which is the question of the rural school; that of labor, which is the question of the negro; that of the factory, which is the question I present to you today. The first of these questions has been discussed until it is threadbare; the second is in an inextricable tangle of contradictory practices and propositions; the third, no less important, is pressing upon us for our consideration.

This latter problem is present wherever there are factories or mills, and a distinctive population known as operatives. In those sections of our country where no child-labor laws prevail the question is how to get them passed by the legislature. In those sections where child-labor laws prevail, and compulsory school attendance does not, the question is how to lure the idler out

of the streets and into the schools. In those sections where child-labor laws and compulsory school attendance both exist the question is what kind of education is best.

The factory child always will be and must be. Therefore we should not educate him out of the mill and into other activities; for that is avoiding, and not solving, the question. Rather we should make of him a better citizen, a happier man, and a more capable operative.

To prove the importance of this problem for those of us who work in southern schools, allow me to call your attention to the remarkable shift of manufacturing emphasis in the last decade. The center of cotton-mill industry is moving to the cotton fields. In 1890 the South operated 26.4 per cent. of the total number of cotton factories in the Union; in 1900 it operated 41.1 per cent. Between 1890 and 1900 there was an increase of the number of cotton mills in the United States equal to 7.5 per cent.; in the South the increase was 67.4 per cent. During that decade the number of spindles increased in the entire country 34 per cent.; in the South the increase was 176.6 per cent. The number of cotton wage-earners in cotton mills in ten years for the whole country increased 36.1 per cent.; in the South the increase was 167.7 per cent. In wages paid during those years there was a general increase of 28.9 per cent.; in the South the increase was 145.9 per cent. In the amount of capital employed there was a general increase of 30.2 per cent.; in the South the increase was 131.4 per cent. In the whole Union the increase of the value of mill products was 24.2 per cent.; in the South the increase was 128.6 per cent.

It is known and honored of men that capital is finding its way into southern enterprises, and that mills are building on every stream; and the sweet hum of industry betokens an awakened and prosperous people.

The mill operative is exclusively white. He has generally come from the farm, which he abandoned because it was unprofitable, and because the allurement of ready pay, steady work, indoor occupation, and the likelihood of making every member of his family productive was too great a temptation for him to resist. So the factories are building at the expense of the fields, and the increasing cry of labor for the farm intensifies the already acute feeling regarding the proper destiny of the southern negro.

One of the incentives that draw the operatives to the mills is the fact that children, generally from twelve years and upward, are allowed to work and gain a small amount that adds to the family income. In many instances children of tender age are received into the mills and allowed to do work far beyond their strength. In some instances children have been allowed to work at night, and the only sunshine they knew was that which came to them upon the sabbath.

The heartless greed and often the laziness of the parents are at fault in large measure. They beg the authorities to receive the children in the mills. They claim that their necessities demand it; that the children had better be

in the mills than on the streets; that they are often unprotected at home. The mill authorities generally prefer not to employ children, and would in most instances gladly dispense with them; but they allow it at the pressure of the insistent parent. And so the unprotected child is caught between the cupidity of his parent and the apprehension of the mill-owners, and his life is ground into a joyless, hopeless, pitiable existence.

In all agitation for better child-labor laws the child is the last thing considered. It is thought better to have more mills and to make larger dividends, than to care for the workers. The lawmakers are beseiged by the mill-owners to let things alone. The delegates declare that the operatives prefer to decide some questions for themselves, and all the agitation for reform is laid at the door of a few philanthropists who take upon themselves the impertinent office of meddling with other people's affairs. And so the wheels whir and turn, and by them stand the tired little workers, who drop into their beds at night to forget their troubles, and awake to other days of debasing monotony. The slaughter of the innocents goes on, the insatiable thirst of the capitalist is unslaked, the greed of the ignorant laborer is unrebuked, and there creeps about the reeking, withering mill the child with the pale and old-looking face and stooping shoulders that tell of long and hot hours of work, of little food and that badly cooked, of insufficient sleep and that in an unventilated room.

And so after many years there comes about a startling condition of ignorance among mill operatives, of general listlessness to other things in life, and an indifference to any of the comforts or joys of living. The children know only work and sleep. They have never learned to live. I know of no population apparently so joyless and helpless as that surrounding the ordinary mill. Nearly all the children are allowed to chew tobacco, to smoke cigarettes, and know how to swear. Not long ago I accosted a group of boys near a mill and challenged them for tobacco. They responded, every one. and one confessed he had been chewing since he was six years old.

Aside from the moral danger arising from this condition, there is an industrial one. Children put to work at tender years, at a monotonous and unvarying machine, develop a fatigue for work and a distaste for it that beget idleness in later life. Work with them is something to escape from, since it has no joy with it. They have worked out and wasted their energies before they were mature and before there was any power of renewal.

The enlightened sentiment of the world has come to recognize the proposition that the most productive and profitable labor is that which is happy and content, well cared for, with comfortable conditions for work, and wholesome occupation for the leisure hours. It is expensive to neglect or depress or subdue the working force. It begets carelessness, inability, stupidity, and revolution. We have come to know that the happiness of labor is the trust of capital, and that under no other conditions can a people prosper, or the best product be obtained from their efforts. There is a duty that is

owing to the homes, the children, the comforts, the amusements, and the education of the mill operatives resting upon the mill-owners, and upon those who have to do with the training of mill children.

Those of us who have worked with this problem know that many parents enter the mills at daylight, leaving the children to rise, eat their breakfast, and make off to school or to play in the streets. The very young ones are the first problem, and that is solved by the kindergarten. If the kindergarten has any righteous work anywhere, and has a mission on earth, and a message to the little ones, surely the best place for its deliverance is in the crowded districts surrounding a mill. There they are, the tots from four to six years of age, in everybody's way—a problem to the home, a menace on the streets, waiting to be washed and cleaned and cared for. If it be true that our lives are set or bent for good or evil by the time we are seven years of age, the rescue of children under school age in mill settlements presses for consideration.

The education of the school is only one phase of the training we get for life, and in school there should be emphasized those things which the business and home neglect. In the study of mill homes and children we observe that they are oppressed with much machinery. They know little else than the whir of wheels, the noise of loom and spindles, and they are beaten down by the click of the shuttle, as it weaves back and forth into the gray warp of their lives a filling of unutterable dullness. They want relief from tools and to get away from the sound of wheels. They want schools to give them that which life otherwise would not know. The emphasis of their education should be placed upon the spiritual rather than upon the industrial side of life.

They need the rounding influence of a training in habits of neatness and order, of love of books, flowers, and decorations, and of resources for the occupation of their leisure hours. They need to be inspired with hope and desire. They need to learn how to play, how to smile, how to love, how to be cheerful, and content.

I have seen them enter school at the beginning of the year, with sullen, downcast, fearful faces, feeling that all the world was against them and school was a place of distrust. Their minds were bound, hard, sterile. At the end of a few months they learned that we meant no harm, and began to take notice and respond. They had awakened to better things. At last we have seen them enterprising noble things for others, preparing decorations for their homes; and all with the frank, smiling, upturned face of the free.

Unquestionably, domestic science is one of the studies most needed in all schools. The training in how to keep a house is of the most vital importance to girls; and the training in how to support one and to stay in it with pleasure is equally important for boys. The simple science of how to keep a house clean, how to decorate its walls, how to make it cheerful, how to cook and serve food, how to make up a bed, how indeed to live at home instead of staying in a house, is vital to the welfare of all people. Public schools, with

their limitations, can reach this problem only indirectly, but the home training school is as necessary an adjunct to the mill school as is the kindergarten. The success of the experiments in Columbus, Ga., in conducting a school for home-keeping and domestic science shows the value of teaching children that which they have no other opportunity to learn.

Along with such instruction will come better and neater dressing for boys and girls, more ribbon, more flowers, cleaner bodies and souls, and a greater self-respect which is at the basis of all culture and of all morals. When we can get the men and women to love their homes, take a pride in them, respect themselves and their surroundings, we have gone a long way toward redeeming them.

There must necessarily drift into the mill communities many persons whose early advantages were limited, and who have grown to man's estate without education. They must work all day, and for such a night school should be provided. Into the night school should be admitted only those of mature years, who could not find admittance into the day schools. These night schools should deal with the most necessary and elementary education, and should teach the illiterate how to read and write and calculate the simple problems of everyday life. We have kept the record for many years of the results of night-school work among mill operatives, and while we register some failures, the large majority of cases have been able to earn higher wages and live in more comfortable and respectable surroundings.

In conjunction with the night school we have experimented largely with the free lecture course. These lectures will be on all sort of subjects, designed to entertain and instruct—lectures on travel, simple science lectures, humorous lectures, anything indeed that will lift their souls out of the gloom of perpetual and uninteresting labor. Likewise a library has been established in connection with the school, with books to be carried home by the children and read to their parents; also a reading-room, open certain nights, with papers, magazines, and games, as a place to spend those dangerous hours that we call the leisure hours.

So, if we can realize, as they have at the National Cash Register Co. at Dayton, Ohio, that the comfort and happiness of the laborers add to the value of the mill's output, that a contented employee is one of the sources of a dividend, and that the way to raise a prosperous mill population is to begin with the children, we shall be face to face with the problem and its answer.

And the child will become grown—knowing how to have a decent home, clean and well ordered; how to have an abundance of wholesome, simple food, well cooked and neatly served; how to care for bodily wants and spiritual nature; how to love plants and flowers and music; how to dress neatly and becomingly; and, above all, how to exercise that restraint and self-respect which is fundamental in all true spiritual establishment.

Then the mills will not grind at the expense of the children, and lives will not be sacrificed to increase profits, but a healthy, upright, contented

population, with readiness for labor and resources for leisure, will add their voices to the music of the mills and swell the mighty diapason of a prosperous peace.

THE ETHICAL ELEMENT IN EDUCATION

WALTER B. HILL, CHANCELLOR OF THE UNIVERSITY OF GEORGIA, ATHENS, GA.

The text for this paper is to be found in the following statement:

THIS IS A CHRISTIAN NATION

If we pass to a view of American life, as expressed by its laws, its business, its customs, and its society, we find everywhere a clear recognition of the truth that this is a religious people. Among other matters, note the following: the form of oath universally prevailing, concluding with an appeal to the Almighty; the custom of opening sessions of all deliberative bodies and most conventions with prayer; the prefatory words of all wills, "In the name of God, Amen;" the laws respecting the observance of the sabbath, with the general cessation of secular business, and the closing of courts, legislatures, and other similar public assemblies on that day; the churches and church organizations which abound in every city, town, and hamlet; the multitude of charitable organizations existing everywhere under Christian auspices; the gigantic missionary associations, with general support, and aiming to establish Christian missions in every part of the globe. These, and many other matters which might be noticed, add a volume of unofficial declaration to the mass of organic utterances that this is a Christian nation.

These words, which sound like the language of some bishop or doctor of divinity, are taken from a decision of the Supreme Court of the United States.[1] The "organic utterances" to which the paragraph refers are set forth in the same opinion with great fullness, being taken from the language of the early charters of the colonies and the constitutions of the states. The Supreme Court adopts as its own the decision of the state courts that Christianity is a part of the common law of the land. The case arose on the construction of an act of Congress, and the principle of interpretation adopted is that "no purpose of action against religion can be imputed to any legislation, state or national, because this is a religious people."

The Supreme Court of the United States—the living voice of the Constitution—has thus declared that the nation is in a legal aspect a Christian nation. If so, its public functions necessarily partake of the same character. Public education is one of these governmental functions. The administration of justice is another public function. In a Christian nation such administration is Christian. Let us first examine this contention carefully with reference to the administration of justice. An analysis will help us to deal with the main point, as it affects public education in the United States.

THE ADMINISTRATION OF JUSTICE IS CHRISTIAN

What is meant by the statement that in this country the administration of justice is Christian? We have already seen that the Supreme Court has

[1] 143 U. S. 457.

adopted and approved the doctrine that Christianity is part of the common law. This does not mean that Christianity and the law are coextensive; on the contrary, we know that there are many police and sanitary regulations—such as municipal ordinances against expectoration in public places, or building wooden tenements within fire limits—that are devoid of moral quality. On the other hand, we know that there are heinous moral offenses—such as ingratitude, avarice, impurity of thought—over which the law assumes no jurisdiction. If we use a diagram to represent the state of the case, we might draw a circle within an ellipse. The space within the circle—and thus within the ellipse—would represent the large domain in which law and morality, Christian morality, are coextensive; while the respective ends of the ellipse outside of the circle would represent the domain already mentioned in which they are not coextensive. This circle, or common ground, it is which supports the announcement of the court that Christianity is a part of the law of the land; and with the progress of society this circle is expanding, for the growth of the law is always in the direction of ethical enlargement. The lawyer who stands before the jury of American citizens invokes in his appeals to their consciences the maxims of Christian justice, so far as they are distinct from or an advance upon the maxims of pagan justice. The judges, in finding a *ratio decidendi* in the numerous cases not directly controlled by judicial precedent, look for it in the principles of Christian ethics, as distinct from Confucian, Buddhist, Mohammedan, or naturalistic ethics. Does this violate any right of conscience? Has the Chinaman just cause of complaint if in a controversy in the courts of this land the judges refuse to enforce the maxims of Confucius? Can the Mohammedan complain that the Koran is not recognized in the case to which he is a party, as the source of ethical rules that define justice? For such grievances the American has but one answer. If you want Confucian or Moslem justice, you must go to China or to Turkey to obtain it. Historically and legally, this is a Christian nation. Its character, its genius, is Christian; and its administration of justice necessarily partakes of that character.

The analogy may be carried farther. I ask your patient consideration of these prolegomena; for we are now upon solid, undisputed, ground, and the object is to prepare the way for the less accepted application of the same principles to public education. We raise again the question: How far is the administration of justice in this country Christian? In a democratic country the law comes from the people. This is not legal fiction; it is fact. Legislation is by the representatives of the people, but legislation plays a very small part in the administration of justice, as compared with the evolution of the law thru the courts. How does this evolution go on? Whence does it start? It starts with the people. Some citizen thinks that he has a legal right in his dispute with his neighbor, or that a wrong has been done him for which he wants redress. Observe that here is the beginning-point: the notion of some private individual about a right or a wrong. If he has no

such notion, if he is too ignorant to conceive it, or too doubtful or indifferent or timorous to act upon it, there will never be a case or a trial, or a decision. But if he believes in his own sense of justice, he will take his crude conceptions to a legal adviser, and in the lawyer's office the legal right will be canvassed and investigated, as well as it can be done in an *ex parte* examination. If the counsel advises the assertion of the right, the controversy becomes a case, and then in open court, with both sides as parties in the presence of a disinterested tribunal, the whole case is investigated and finally issues in a decision which is the rule, not only for the parties in that case, but for all parties who may ever have a like case.

The process may be illustrated by gold-mining, where the crude ore mixed with earth is brought to the stamping-mills, and the final outcome is the dollar of the mint, the current coin of the realm. Now, the crude ore in the process is made up of the crude ethical notions of the people as to their rights and wrongs. Unless such notions are set into self-activity, no lawyer's advice is sought, no judge's ruling pronounced. In this sense, then, the law originates with the people, and in a democratic community the law represents at any given time the social standard of justice prevailing at that time. Now, the religion of the people is the principle source of popular notions as to right and wrong. By forming and influencing these popular conceptions, the churches of the land, its corporate religious organizations, play an enormous part in the evolution of social justice. And just to the extent that any community is a Christian community the administration of justice will be Christian. It is no more certain that a river will be made up of water from springs that supply its tributaries than it is certain that the stream of justice will emanate from, and will represent, the ethical sense of right and wrong prevailing among the people who constitute the state.

PUBLIC EDUCATION LIKEWISE CHRISTIAN

All this, I now submit, applies to that other public function with which we are specially concerned—education. Christianity is certainly no less a part of the education than it is of the law of the land. Its materials are suffused with Christian conceptions. Geography cannot be taught in a nation where Christianity is the prevailing religion without bringing out the substantial identity between this system and the higher civilization—the most potent argument of apologetics. History is, as Froude has well said, "the voice of God sounding across the centuries the laws of right and wrong," and it cannot be taught in Christendom without a Christian interpretation. The weekly recurring holidays of Sunday, and the annual holidays of Thanksgiving, Christmas, and Easter, make a recurring religious impression. The situation is illustrated by the story of a father who, in a spirit not hostile to religion, but desiring to institute an experiment, determined that he would keep away all Christian prepossessions from his boy's mind—preserving his mind in youth as *tabula rasa*, so that when he arrived at the age of reason

he could address himself without bias to the consideration of the subject. The father found that he would have to keep the boy shut in at home, for the lad could not walk abroad without seeing the spires of splendid buildings called churches, whose character and meaning he would wish explained. The newspaper must be excluded, or else the very year of publication, *anno domini*, would disclose the fact that a significant event in history had come to be an era from which men counted the calendar of time. In other words, the father soon realized that the subject of the experiment must be blind, deaf, and dumb—a price he was unwilling to pay for so doubtful an advantage as was sought. To state the situation in other words, the enveloping atmosphere of education in a Christian state and nation is Christian. But the chief influence of this character is yet to be noticed. It is in discipline. If it were possible to separate education into the two divisions of knowledge taught and conduct inculcated; if we were denied the privilege of blending the training of intelligence and the training of character; if we were put to the necessity of surrendering one or the other, I suppose no one would hesitate for a moment to say: "We will sacrifice the knowledge of the schools and keep their discipline." Illiteracy, fearful as it would be, is preferable to anarchy. Now, the discipline of education in a Christian land is Christian. Discipline requires, in the first place, personal abstinence from evil practices; and, in the second place, it regulates the conduct of individual pupils in relation to their fellow-pupils by the principles of Christian ethics; not ideally, of course, but with such practical approximation as is possible under existing conditions. To be effective, discipline must not be coercive, but must win the affection and the will. If the child never heard in school one word colored by moral sentiment, he could not possibly pass through its discipline without training in individual and altruistic morality; and the morality is that of the Christian type as distinguished from other types.

The general view here presented finds the support of actual testimony in the replies of nineteen college presidents made to a questionnaire sent out by the *Outlook*. These replies justify the conclusion that public-school students who go to college exhibit as high a type of character as those who come from private or church schools.[1]

When, therefore, we hear the cry for "Christian education," our answer must be that given to the crew of the vessel which signaled to a passing ship that they were in want of water. Without knowing it, the distressed crew had drifted into the waters at the mouth of the Amazon, and the only help they needed was given in the words signified in the reply: "Let down your buckets."

RELATION OF CHURCH AND STATE EDUCATION

But usually the cry for Christian education means sectarian education; that is, Christian education plus an element of distinctively sectarian instruction, which the state is forbidden by public policy and by written constitutions

[1] *Outlook*, Vol. LXXVI, No. 2.

to supply. The precise situation is this: The two most important organizations of civil society are the church and the state. Each is bound by the law of its life to educate. A democratic state must educate, because intelligence is necessary to its existence, and thus education is a self-protective necessity to the state. The church must educate or perish, for any church that does not believe itself to be the depository of religious truth so essential and so vital as to justify that church's separate organization, and so essential and so vital as to prompt missionary zeal for its propagation, is dead or dying. Unless the state and the church undergo radical transformation beyond any present power of prediction, both must continue to educate; and those who expect either church or state to abdicate this function are victims of vain expectation. No true patriot would be willing to cancel either of these two great forms of education from our public life. We in America are prepared to understand the correlation and harmony of these dual systems by our dual system of federal and state government, each discharging its separate functions, and yet both working in co-ordination. When we were using the administration of justice as an illustration, it was stated that law in a democratic state represented the social standard of justice and really emanated from the people. It is an ethical barometer which registers the public concept of justice. To change the figure, law at any given time is a composite photograph of the mental images of justice in the bosoms of its citizens. So precisely education will always represent in a democratic state the social standard of intelligence. The people mirror themselves in their schools. The churches, by reason of their high ethical and spiritual mission, powerfully affect the standard of public opinion and conduct. They are the saving salt of society, and if their members are concerned for Christian education, they have the satisfaction of knowing that, while they are keeping church education sectarian, as it necessarily must be, they are powerfully aiding to keep state education Christian. So long as the fires of pure religion burn on the altars of the church, so long will its glow be transfused in the teaching and training of all the schools. It would seem that Christian people ought to rejoice in their opportunity to influence public education in the ways which have been pointed out. Especially should this be true of Protestant churches, which, by general acceptance of the public schools, have practically abdicated the function of church education during the plastic period of childhood and early youth.

THE AGNOSTIC ATTITUDE

We have now reached the great paradox of our subject. In this Christian nation religion cannot be taught in the public schools. One court (Wisconsin) has decided that the Bible cannot be used in them, even by reading without comment; another court (Nebraska) has decided that it cannot be used as a part of religious exercises. If an intelligent visitor from another sphere, to whom we sometimes appeal for an *a priori* judgment, should be confronted with this problem, he would say at once: "Certainly, I under-

stand this. It is because among your citizens there are some who are agnostics and some who may be opposd to religion, and they interpose their objections against these practices." But this natural inference would not be correct. Mr. Huxley, the great protagonist of agnosticism, in a well-known passage has advocated the use of the Bible in the public schools:

> I have always been strongly in favor of secular education, in the sense of education without theology, but I must confess I have been no less seriously perplexed to know by what practical measures the religious feeling, which is the essential basis of conduct, was to be kept up, in the present utterly chaotic state of opinion on these matters, without the use of the Bible.

I wish that space permitted the introduction of the entire paragraph. It is important to notice that Mr. Huxley advocates the use of the Bible in the schools, not as literature, but, as he says in the opening sentence, as a practical measure to keep alive religious feeling. Renan is quoted as having expressed a substantially similar view.

No living writer has shown more genuine concern for Christian education than Mrs. Humphrey Ward. She has uttered an almost impassioned plea in its behalf. In the April number, 1903, of the *International Journal of Ethics*,[1] Ellen Darwin has a striking article entitled "The Religious Training of Children by Agnostics." She earnestly deprecates the danger that an agnostic parent may cause his children to "suffer, as it were, a spiritual blight by cutting them off from the spiritual life and traditions of mankind." She counsels such parents to say to their children:

> The world is shut to you, if you do not understand and feel the beliefs of mankind. . . . Unless you have an insight into the higher spiritual life of man, repellant and distorted on the surface, the best part of life is closed to you.

THE BARRIER OF SECTARIANISM

The planetary visitor would open wide his eyes at these amazing utterances, and ask whence then came the objections to education in the "best part of life." He would open his eyes wider at the reply that it is sectarian Christianity that stands in the way; and this reply receives an astonishing emphasis in the fact that, so far as the record discloses the motives of the complaining parties, every law case in which a rule of exclusion or limitation on the use of the Bible has been invoked has been brought, not by an agnostic or infidel, objecting to religious instruction, but by a sectarian, objecting that the instruction was not in accord with the tenets of his sect. This is the situation which will some day bring the blush of shame to the most bigoted of sectarians. It looks back to the past, to the period of the Middle Ages, described by Judge Blečkley, "when every good man thought it his duty to burn some man who was better than himself." In those days each orthodoxy said to every "other-doxy":

> Quisquis qui credit aliter
> Hunc damnamus aeternaliter.

Happily the old order changeth. As far back as 1873 the Protestant

[1] Vol. XIII, p. 269.

denominations united in an Evangelical Alliance, and no representative of any one of them felt disloyalty to its special traditions because he spoke under a motto (printed across the stage) which announced: "unity in things essential; liberty in things doubtful; charity in all things." The most significant sign of the times in the direction of Christian tolerance and unity is in the growth of the Young Men's Christian Association. The inevitable tendency of such a movement will be to discover and to emphasize the vital and essential in religion. There are some college communities in which, I am informed, the Roman Catholic young men have united with the Protestants, and Hebrew students have enrolled themselves as associate members. One of the most important Association buildings in the southern states was presented to the young men of the city by a Jew.

COMPROMISE ON A MINIMUM?

The question may be raised: Is it now possible to find some common ground of belief which may be the basis of religious teaching? The supreme court of Wisconsin, which has rendered the most radical of all the decisions against the use of the Bible in the public schools, indicates that this might be legally done. The court defined sectarian instruction as "instruction in doctrines believed in by some sects and rejected by others," and as an instance of a doctrine not sectarian refers to that of "the existence of a Supreme Being of infinite wisdom, power, and goodness, and that it is the highest duty of all men to adore, and obey, and love him."

Now it may be asked: Why not find the irreducible minimum of belief and use it as the basis of common agreement for religious instruction? Might not the parties agree on what Dr. Martineau has called the three fundamental postulates of religion, which he has thus expressed:

> The universe which includes and enfolds us round is the life-dwelling of an eternal mind; this world of ours is the scene of a moral government incipient, but not yet complete; and the upper zones of human affection, above the clouds of self and passion, take us into the sphere of a divine communion.

There is certainly no religion extant which would dispute these elementary propositions, but the scheme of finding by elimination the residuum of belief and proceeding with religious instruction to that extent is liable to the fatal objection that, according to the belief of some of the churches, this residuum is not religious truth at all, except as interpenetrated with the peculiar tenets which are excluded by the compromise. The English Education Act of 1870 seems to have been framed by Mr. Foster on the conception that, if all the differences of English Christendom were stricken out, there would be found the beating heart of a common Christianity; but the difficulty of the view as a working scheme was perceived by the astute mind of Dr. Martineau long before the agitation emerged in the complicated legislation of 1903. It will be interesting to reproduce his criticism. In 1893, in a letter to the *Times*, he wrote:[1]

[1] *Life and Letters of James Martineau*, Vol. II, p. 182.

It is often supposed, especially by latitudinarian thinkers, that religious unity may be reached by lopping off and disregarding the differentiating elements of sects and churches, treating them as a separate appendix to the mass of common elements which they superfluously vary and deform. Under the influence of this idea reformers intent on healing divisions and promoting union have invariably made light of the distinctive features of each religious party and tried to negotiate for their relinquishment. . . . . But this fascinating theory of "a common Christianity" on which the essentials are to settle, after leave of absence has been given to all else, will not work. It is doubtless true that there may be spiritual sympathy underlying great doctrinal differences; but the central concordance thus reached is affectional, not logical, and will baffle all attempts to lift it into expression. And, on the other hand, every creed-maker or creed-mender, every theological innovator, is apt to become the enamored victim of his own little discovery till it blinds him to a universe beyond, as a sixpence may hide the sun. He at once enters his favorite doctrine among the "essentials," or in such relation to them that it is against his conscience to suppress it.

However, Dr. Martineau himself, in 1894, in a letter to the *Times*,[1] propounded what seems to be the best solution of an insoluble problem. His suggestions will well repay perusal. How the present situation as to sectarianism affects the school life among us is dealt with in Mr. Marden's capital story *Emmie Lou, Her Heart and Her Book*. The chapter to which I refer is entitled "The Winds of Doctrine." The fearful charge of heresy becomes current among the children of the school. I make no apology for the citation, for the book is equal to a course in child study. The chapter, however, suggests the question: If such things as are there described happen with religion kept out of school, what would happen with religion in it?

RELIGION NOT TEACHABLE IN THE SCHOOLS

How shall we appraise the gain and loss of these conditions? In so far as it makes impossible the teaching of formal religion in the schools, I count it wholly good. It would be a sad day for religion when it was cut and quartered into the paragraphs of a text-book, and placed alongside of arithmetic and geography in courses of study. The natural heart of piety cries out with Sidney Lanier:

> Grim creed, with categoric point forbear
> To feature me my Lord with rule and line.

There is no better proof of the vitality of Christianity than the fact that it has survived the catechism. The truth that is in religion is like the truth in poetry and art: unless it affects the imagination, it is moribund. The adult can verify this by comparing a noble hymn with a paragraph of a treatise on theology. He will find himself singing the hymn, but repelled by the statements of the dry-as-dust book. The primary sentiment in religion is reverence; nothing can be more fatal to reverence than to place religion on a parity with the other studies in a curriculum.

[1] *Ibid.*, p. 185.

THE USE OF THE BIBLE

But, in so far as sectarianism stands in the way of a distinctly religious exercise of worship in the state schools, it unquestionably leads to a serious loss. In a great majority of schools thruout the United States such an exercise is held without challenge; but it is mournful to reflect that sectarianism may, under the provisions of many state constitutions, lay its forbidding hand upon these beautiful and wholesome practices. The precise point ruled in the last case on this subject [1] was that, while the Bible could not be excluded from the public schools—while it can be read as literature or taught as ethics —yet it cannot be used as a part of the devotional exercises against the protest of an objector.

What then? Should those who believe in religious education take advantage of the poor boon thus offered and introduce as literature the Bible rejected as religion? My individual answer would be in the negative. I have seen the Bible used as a text-book in church schools, assigned as recitation work for Monday morning, in order to encourage its reverential study on the sabbath. In spite of these favoring conditions, the result was quite the reverse of edifying. The Bible, as the book is universally called, was irreverently described as "Bible," in the same slang that reduces mathematics to "math" and political economy to "polit." The higher criticism seems to have caused confusion on this subject. Its proposal to study the Bible as literature is a wholly distinct proposition from that of placing the Bible on the footing of other documents in the study of literature. There are school readers in which chapters of Scripture are placed along with literary exercises. Is the gain of the little knowledge thus acquired offset by the discount of reverence? They reckon without their host who hope by such devices to retain the hold of the Bible upon the affections of mankind, and its influence upon thought and speech. Dr. W. T. Harris attributes the maximum power of suggestiveness in the symbolic language of the psalms, prophets, and gospels to the fact that the Bible has been kept apart from other literature, and held in such exceptional reverence as to be taken out of the natural order of experience. In a strong article on this subject in the *Atlantic Monthly*, September, 1903, Mr. Herbert W. Horwill shows that

> The old-fashioned saturation of style with scriptural terms and theology was not produced by any conscious selection of the Bible as a literary model, but was an indirect result of the emphasis upon its theological importance;

and he quotes the *Nation* as pointing out Ruskin as an example that the English of King James's version became second nature to our forefathers

> by means of repeated reading and compulsory memorizing under the father's eye and at the mother's knee; and the imaginative association and the indelible memory of epithet and description were borne away frequently by children who read it in trembling and holy reverence.

In Morley's *Life of Gladstone* there is given an autobiographical note, in which

[1] State *vs.* Scheve, 97 N. W. Rep. 169.

Mr. Gladstone refers to various passages of Scripture which in times of stress came to him as directly as if borne on angel's wings.[1] For instance, after the decision in the Gorham case, which seemed to him to be a great blow to the Church of England, he refers to the following passage:

> And though all this be come upon us, yet do we not forget Thee; nor behave ourselves frowardly in Thy covenant. Our heart is not turned back, neither our step gone out of Thy way. No, not when Thou has smitten us into the place of dragons and covered us with the shadow of death.

In the dry air of the schoolroom "the place of dragons" would have disappeared as mythology. It is not conceivable that the strong hold of such a passage could have been taken on the mind of the great Englishman except thru the operation of the religious sense, and in connection with the spirit of worship.

MORALITY MAY BE TAUGHT

While there are restrictions on religious teachings and exercises in the schools, all the authorities agree that morality may be taught, and it is no valid objection to an ethical text-book that it is founded on the Bible. The Wisconsin case, which goes farther than any other decision in the extent of its definition of what is sectarian, expressly holds that ethics is not sectarian. Thomas Jefferson made provision for such teaching in the original plan of the University of Virginia. But while there is no legal or constitutional barrier to the teaching of morality, and while there are some manuals on the subject that are recognized as fairly good and are in use in some states, yet there is probably no point on which professional opinion is more unanimous than that little is to be expected from direct ethical instruction. President Faunce has said:

> To force little children into moral philosophy, into analyses of their own mental states and deeds, is to produce insufferable prigs.

Whether the general opinion could be changed by the production of an ideal text-book for schools cannot be determined in advance of its appearance. Teachers have sometimes found that a subject hitherto regarded as unteachable is made teachable by a book of great excellence. At present the consensus is that the best results of moral education are secured by indirect teaching, and there is much encouragement in considering the extent and variety of the indirect methods that may be employed. In glancing over the index to the *Proceedings* of this Association, I find that specialists in almost every department have contended that morals can be best taught indirectly thru their special subjects. Thus I find two references to sustain the proposition that morals should be taught thru art; seven to the point that the subject should be taught thru biography and history; three, thru the kindergarten; five, thru literature; ten, thru music; three, thru the natural sciences and nature study; two, thru physical training; and one, thru sociology.

[1] MORLEY'S *Life of Gladstone*, vol. I, p. 201.

EDUCATION INHERENTLY ETHICAL

In conclusion, the ethical element of education is intrinsic; it develops power, and while some of it goes to the bad, the most of it goes to the good. The tendency at least is always upward. To one who points out the failures of Christianity there is the one sufficient reply that Christianity has never been tried. So to the critics of educational failures it may truly be said that education has never been tested. It is amazing that some people talk of the experiment of negro education as having failed, as if forsooth the little done in that direction was an adequate trial of the experiment. Macaulay said: "The only cure for the evils of liberty is more liberty;" and the same is true of education. President Washington of Tuskegee is able to say that no graduate of his institution has added to the heavy percentage of negro criminality. The ethical element is inherent in education, for humility and reverence are its products. The human mind, as it faces the universe, asks three questions? "What?" "How?" and "Why?" Science answers the first and the second; it does not even attempt to answer the last. The more it shows of the *what* by analysis, the more it finds of evolution as the method: or the *how*, the more mysterious becomes the *why*. Science modestly, and one might say reverently, passes over that question to metaphysics—and metaphysics surrenders it to religion.

The ethical element in education is permanent because of the nature of the teacher's work. That work is a self-bestowal. No teacher does his work without feeling that "virtue has gone out of him"—it has gone at the cost of his vitality into the souls of his pupils. No teacher would ever say of his calling: "Great is Diana of the Ephesians, for by this craft we have our living." There are some professions and some businesses in which a man works for the money there is in the job, and keeps the job. A teacher who worked just for the money in his job could not possibly keep it, even if he so desired; he would be a manifest failure and fraud. There is this inherent nobility in a teacher's work that, while it is performed in part for himself, it is performed chiefly for others. It is not too much to say that the faithful teacher imitates in a humble, and yet not far-off, way that transcendent example of service and sacrifice that has forever fixed the wonder and the love of men.

ADMINISTRATION AND SUPERVISION

I. THE SUPERINTENDENT AS A MAN OF AFFAIRS

WILLIAM H. MAXWELL, CITY SUPERINTENDENT OF SCHOOLS, NEW YORK, N. Y.

The primary objects of school administration are, first, to take the measures necessary to secure for every child his natural and constitutional right to an education that shall equalize for all, as far as education may, the oppor-

tunities for life, liberty, and the pursuit of happiness; second, to provide properly qualified teachers for our children; and third, to create those conditions under which each teacher may do his best work. The chief instrument in accomplishing these objects is, or ought to be, the school superintendent.

Frequently we hear it said that the administrative rules which govern the work of a superintendent in a large city do not apply, because of changed conditions, to a superintendent in a small city; and that the methods of work in a small city or village must necessarily be very different from those used in a large city. Such statements are only partially correct. True, the superintendent in a large city is compelled to devote his time chiefly to administration, and sees comparatively little of the work in the schools; the superintendent in a small city has much greater opportunities of coming in contact with teachers and pupils. And yet, the difference is but a difference in detail. The superintendent in a large city should be both a schoolman and an administrator; so should the superintendent in a small city. Each, if he is to be instrumental in carrying out ideals of school administration, should be both a schoolman and a man of affairs. The only difference is that in the small city or village the superintendent performs the work himself, by his own personal exertions; in the large city the superintendent acts thru agents. The objects of public education are the same in a Rocky Mountain village as they are in The City of New York; in a hamlet of Mississippi as in the city of Chicago. And these objects are to bring the young of America, whether home-born or foreign-born, into harmony with American civilization, to put them into possession of their intellectual inheritance, to inculcate high ideals of life and of conduct, to develop power and skill, and to cultivate those virtues of reverence, courage, and devotion to duty, without which the citizen cannot succeed and the republic cannot endure. These are the chief objects for which public schools have been established. The superintendent and the whole administrative machinery exist only for the purpose of accomplishing these ends; and the three great services which the superintendent can render toward their accomplishment are, first, to aid in securing education for all children; second, to provide properly qualified teachers; and third, to create those conditions under which each teacher may do his best work.

In order to secure education for all children, to the end that all may have equal opportunities for life, liberty, and the pursuit of happiness, legislation is necessary to require all children to go to school, to prevent children from being set to work while they ought to be playing and learning, and to curb and punish the greed of parents and the greed of corporations, that would coin money out of the flesh and blood of these little ones.

In order to secure properly qualified teachers, the first essential condition is to establish a high standard of scholarship and of professional training for entrance to the teaching profession. When, in 1895, the law was enacted

by the legislature of the state of New York that no one should be licensed or appointed as a teacher in the public schools of any city or village of the state who had not as a minimum qualification a high-school course of three years and a professional course of one year, the most important step ever made in this country to raise the standard for entrance to the teaching profession was taken. Already in that state, thru the co-operation of the city and village superintendents with the state superintendent, this minimum has been raised to four years of high-school work and two years of professional training.* But we are still far from ideal conditions. Our teachers have not, even with these qualifications, that breadth of culture, that familiarity with our intellectual inheritances, that insight into human affairs, which are necessary to enable them to discharge in the most stimulating and economical manner their duties as teachers. The next step forward should be to require at least two years of purely college work above and beyond the ordinary high-school course. It may be said that many of our colleges and universities, thru their chairs and departments of education, are already providing such teachers. But, in the first place, it may be observed that there is no immediate prospect that the colleges and universities will be able to supply anything like the number of teachers required. In the second place, experience does not pronounce an unqualifiedly favorable judgment on the elementary-school work of the college graduate. When he enters on actual work, he is a pure theorist. He knows little or nothing about practice. He is like the physician who should commence to practice medicine after listening to courses of lectures and reading a few text-books, without having attended a clinic or tried his nerve and his skill in a hospital. What is needed is not college men who have taken pedagogical courses as part of their work for the A.B. degree, but college men and women who have laid broad and deep their foundations of culture, and then devoted all their energies for not less than two years to learning, thru study, observation, and practice, how to teach.

The second condition for obtaining properly qualified teachers is some method of appointment and promotion under which the teacher's self-respect shall be maintained, and under which no influence—not social influence, not religious, not political—except that of merit, shall prevail. How can we expect to attract to the teaching profession ladies and gentlemen of culture and refinement, if, in order to obtain an opportunity for the exercise of their talents, they are compelled to beg the favor of politicians or humble themselves in the dust before a little brief authority? How can we expect teachers to inculcate by precept and example the duties of reverence, courage, and devotion to duty, if they are constrained to despise themselves for the methods by which they obtained their appointments? In some places, and with great success, an attempt has been made to root out this great evil by placing all power of appointment and promotion in the hands of the superintendent. The objection is that too much depends on the personal equation. In the hands of an able and fearless superintendent, the plan works well in a city

of moderate size. If, however, this power falls into the hands of a politician, or even of a feeble man or a timorous, the last state of that city is worse than the first. My own view is that the best plan yet devised is that in use in Greater New York — appointment and promotion by competitive examination. This plan, however, is open to the objections of being somewhat mechanical, and of being too often vulnerable, as the civil-service laws are vulnerable, when unscrupulous teachers take advantage of legal technicalities that are sustained by the courts. Upon the whole, however, it has worked well, and has generated an enormous enthusiasm for self-improvement among the New York teachers. It will doubtless continue until a better plan is devised.

Suppose an adequate supply of properly qualified teachers, what conditions shall the superintendent seek to establish to the end that each teacher may be enabled to do his best work? They may be classified under four heads: (1) proper school accommodations; (2) adequate remuneration for teachers; (3) the assignment of each teacher to that work which he can do best; (4) the development of a code of professional ethics that shall be binding on all members of the teaching and supervising force. A few words upon each of these topics.

I. PROPER SCHOOL ACCOMMODATIONS

a) Schoolhouses should be sufficiently large and sufficiently numerous to provide accommodations for all of the children of the community, distributed in classes of moderate size. Our aim should be to reduce the number of pupils to a teacher until a point is reached at which no teacher shall be required to teach more than thirty pupils at one time. Those who know the conditions in New York and Boston and Chicago may regard this as a counsel of perfection. It is, however, a perfectly feasible aim, and will be attained in a few years if the superintendents of the country unite in demanding it.

b) Schoolhouses should be so distributed thruout the community as to afford convenient opportunity to all the children of the neighborhood to go to school. The importunities of real estate speculators, and the opposition of rich and socially exclusive communities, are as much to be dreaded and as much to be opposed in the location of schoolhouses as is the interference of politicians in the conduct of the schools. While the superintendent should have no direct voice in purchasing a school site, his judgment should be potential in its selection. There is no extravagance or waste in school-building comparable to that caused by the erection of buildings in unsuitable places.

c) Schoolhouses should be not only properly heated, lighted, and ventilated, but properly furnished and equipped. Much progress has been made in these respects. Good high schools are now better equipped with laboratories than the colleges were twenty years ago. The old school benches have given way to the separate seat and desk; which in the near future will, I trust, disappear in favor of furniture better adapted to the needs of modern

education. I venture to say that ten years from now we shall be surprised that we ever allowed furniture to remain in our elementary schools, which is simply an obstacle in the way of every school activity except reading and writing. The school furniture of the future will subserve many different purposes—scientific experiment and observation, carpentry, drawing, modeling, and the other forms of manual training that have found their place as essentials in the elementary curriculum, alongside of work in the ordinary branches. Here again, in every respect except the making of contracts, the superintendent's voice should make itself felt.

II. ADEQUATE REMUNERATION FOR TEACHERS

The last report of the Commissioner of Education shows that the average salary of men teachers in the United States is $49.05 a month and of women teachers $39.77 a month, while nearly one-half the teachers in the country change their positions every year, owing to the widely prevalent plan of appointing teachers for but a single year. Are these the conditions under which a teacher can do his best work? Can he always be cheerful and gentle when chill penury freezes the genial current of his soul and prevents his undertaking any sustained measures of self-improvement? I submit that it is one of the first duties of a superintendent to secure adequate remuneration for the teachers under his supervision. Under this term I include a living wage increasing with years of experience, permanent tenure of office after a probationary term and during efficiency, and a pension when old age or infirmities render the teacher no longer fit for active service. I am not pleading for luxury or wealth for the teacher. Luxury and wealth have no place among his ambitions. The teacher's way of life should always be frugal; but it should be the way of life of the cultured lady or gentleman. If he is to fulfil his mission, he must travel, he must study, he must mingle in refined society; and these things he cannot do on forty dollars a month.

III. ASSIGNMENT OF EACH TEACHER TO THAT WORK WHICH HE CAN DO BEST

As there is no source of economic weakness so great as setting men to work for which they have no fitness, so there is no more fruitful cause of waste in the schoolroom than setting teachers to work for which they have no adaptability; as, for instance, requiring a teacher whose taste runs to language and literature to teach mathematics; or a teacher who has no ear for music to teach singing. The assignment to duty should, therefore, always be made by an expert—an expert not merely in school-work, but in human nature. To do this work, or to see that it is done right, is one of the chief duties of a superintendent.

IV. THE DEVELOPMENT OF A CODE OF ETHICS THAT SHALL BE BINDING ON ALL TEACHERS

Such a code will transcend legal enactments and school-board ordinances. It will be binding upon all teachers solely by reason of their own sense of honor. Such a code will forbid the teacher's appeal to any social, religious,

or political influence to secure appointment or promotion. Such a code will enjoin never-ending preparation for life-work, gentleness toward all children as becomes the "under-shepherds of the Lord's little ones," and that optimism which, thru the mist of opposition and the obscurity of apparent failure, discerns the uplifting of humanity thru the genius of universal education.

Such are the conditions under which a teacher may do his best work—properly located and equipped schoolhouses, adequate remuneration, assignment to the work for which he is adapted by natural aptitude and by training, and a code of professional ethics that shall regulate all his professional conduct.

What are the means by which a superintendent may bring about, or aid in bringing about, these conditions? I answer, all means which an honorable man of affairs may employ. The time has gone by when a superintendent may confine his efforts to the class-room, his office, and his study. He must work with his board of education, if that is in any way possible; against it, should that course unfortunately be necessary. Thru conferences, public and private, and by taking the leading members of the teaching force into his confidence, he must secure the co-operation of his principals and teachers. By his own written and spoken word, by inciting others to write and speak, and by encouraging local school exhibitions, he must strive to enlighten public sentiment and secure its support for progress in the schools. And, lastly, he must unite with his brother-superintendents to secure necessary legislation for the protection of the schools from the baneful influences of politics; legislation to insure a steady supply of funds, not dependent on the will of local authorities, and increasing automatically as population increases, so that the best energies of the teachers may not be diverted nor progress arrested by the whims and caprices of local politicians; and, lastly, legislation to protect all children in their God-given right to an education. In a word, the superintendent should be, not merely a schoolmaster, but a statesman who has a definite policy to carry out, and who knows how to take advantage of time and opportunity to secure results. Defeat he may often suffer, but he will never be cast down. If his cause is just and his motives are pure, and if he has the perseverance as well as the far-sightedness of the true statesman, success will eventually crown his efforts.

II. THE ASSISTANT TO THE SUPERINTENDENT—HIS FUNCTIONS AND METHODS OF WORK

MISS ALICE E. REYNOLDS, SUPERVISOR OF PRIMARY GRADES, NEW HAVEN, CONN.

The functions of an assistant to the superintendent must vary with the size of the city. In order to speak intelligently, I wish to proceed from a concrete basis, and must ask your attention to the work in cities having a school population of not more than thirty thousand—cities which employ a

supervisor rather than a board of supervisors, and which delegate to him duties which are purely professional.

The superintendent sets forth policies, the assistant must execute them; the superintendent edits courses of study, the assistant must carry them into effect; the superintendent employes teachers, the assistant must be ready to give them aid and advice. His time is spent in the schoolrooms—observing, listening, judging, encouraging, praising, suggesting, correcting. Using data thus gained, he should be ready to consult with the superintendent at any time, and to report skillful teachers who deserve recognition and promotion; misplaced teachers who should be transferred to other grades or other sections of the city; incompetent teachers, with a statement of their specific defects; crying evils which should be rectified as soon as discovered; questionable practices which need to be considered and modified; special courses which merit extention; sources of strength and weakness in the schools as a whole.

An assistant whose time is devoted to schoolroom visiting comes to have a superior bird's-eye view of the whole situation. As year after year he goes from one end of the city to the other, he forms the truest kind of estimate of the relative value of teachers, and can establish standards of comparison not possible to the sectional worker. "The best primary teacher in my district" is often second-rate measured by highest ideals, and "the finest principal in the eighth ward" may be mediocre when compared with the progressive women who are developing in other sections. The assistant, then, is the one person who has an opportunity to discover that Miss F. out in the suburbs is the very woman whose missionary instincts fit her for work in the slums; that Miss S., located in the intermediate grades of an immense building, is full of the executive ability which fits her for a principalship; that an unsuccessful high-grade teacher looks happy when she steps into a kindergarten; that someone else who detests arithmetic and history is the joy of the special teachers in music and drawing. The funny page of the magazine dealing with our foibles treats teaching as a pastime: "What is your daughter going to do when she finishes at college?" "Wall, I kinder reckon she'll teach school. She thinks she'd enjoy the vacations." It becomes the business of all school officials to ascertain what is enjoyed over and above vacations; to create the professional spirit, if it does not exist; to cultivate it, if it does. The recognition of diverse ability even in a given occupation is a first step toward securing the enthusiastic co-operation which works wonders. The dawn of the school millennium will have come in any city when every vacancy is filled by the most deserving person; when each man's burden, so far as possible, is fitted to his bent; and when those who have no bent schoolwise are dismissed. An assistant to the superintendent should act as an entering wedge which will open the way for reducing these theories to practice.

In his relation to the superintendent, an assistant's duties may be broadly outlined under five heads. He should be able—

1. To sense the essentials of the superintendent's policy.

2. To elaborate, adapt, and enforce them.

3. To put the superintendent into intimate touch with the teaching corps, by furnishing facts which differentiate the especially strong and markedly weak teachers from the average.

4. To give information which will economize the superintendent's visiting time; Stating where he may see nature study well handled, which schools are in the van as regards seat-work, which teachers are originating the best plans for elementary number lessons, which rooms emphasize the need of a school for defective children

5. To receive at any time a temporary assignment of a definite block of the superintendent's responsibility and authority.

The all-important attribute of the assistant in his relation to the superintendent is an absolutely candid frankness. The man who delivers an ambiguous opinion, or who hesitates to express a conviction, or who dislikes to be quoted when an issue is at stake, will prove a poor sailing mate in rough weather. The man who is truly an assistant is willing to state his evidence, to draw his conclusions, to stand behind his gun, and to shoulder responsibility.

Service rendered to the superintendent represents one-tenth rather than nine-tenth's of the assistant's working duties, and the end rather than the means. He should be the leader and director of the teaching force, exercising first of all an influence which dulls antagonisms between workers, which allays sectional jealousy, which places the common weal of the children and the good name of the city above petty local excellence. I can remember a city in which each district husbanded its good ideas under seal of greatest secrecy, lest some other school might hear of its plans and try the same general scheme with equal or greater success. The assistant should stand openly and avowedly as a clearing-house for good ideas. A first business of his should be to collect worthy plans and devices, and to disseminate them broadcast. He knows more about the educational outlook than most teachers, and should bring it into their range of vision. He knows what our leading psychologists have each said about teaching reading; and they ought to know. He went to Boston last summer, and came to Atlanta this winter; and their rank and file were absent from both places, and need to go by proxy. He read the November number of the *Teacher's College Record*, and appreciated its exposition of the actual needs of a modern kindergarten; and they need have it *read to them*—figuratively speaking. Similarly the west end of the city needs to awaken to the excellence of the east side. The fourth-grade teacher who keeps to a dreary routine of long division needs to see what a wide-awake room her sister is teaching a few blocks away. The teacher who will describe the woodpecker as if it were a feather duster needs to visit a neighboring district, where an animal cage costing $2.50 houses endless friends in feathers and fur; or she needs to take a bird walk with some school which is taught birds so that "their habitations in the treetops even are half-way houses on the road to heaven;" or she needs to hear some other teacher read Thompson-Seton's "Molly Cotton Tail" as if it were true—even if it isn't.

Grade meetings which discuss common problems, which voice common difficulties, which collect evidence from this one, specifics from that one, objections from the other one, help to strengthen the bonds of mutual dependence and friendship. Such meetings should enlist the sympathy of teachers in various sections by bringing together contributions from all quarters. One teacher may give a short class exercise in phonics; a second may read a brief paper on the subject; a third may have prepared a list of phonograms; answers to enquiries in a question box may involve others. As the result of such a conference the interest in phonics will be somewhat stimulated, and the interest in each other vastly increased. Such quotations as these show which way the wind blows:

1. "I have arranged an index to the arithmetic which classifies the problems so that it is easy to find thirty which illustrate the same principle. Do you think it would help the other teachers? If it would, I'd like to hectograph enough copies for everyone."

2. "I used to dread to visit schools, because I thought teachers didn't want me; but lately everyone shows me good things, and teaches any class I ask to see. I stayed until five o'clock talking over work the afternoon I visited in Elm Street."

3. "Miss Graham has the best games I've ever seen. I wish we might have a meeting and hear from teachers who have succeeded in originating good plays for rooms filled with stationary furniture."

General and free discussions, plus definite directions which are given, should foster unity in the work—unity as opposed to uniformity. It is not necessary that "every child in France" should be reading at ten o'clock, but it is extremely desirable that every child in the primary room should be spending at least one quarter of his school day on reading or tributary subjects; it is desirable that he reads eight books instead of learning one by heart; it is expedient that from the first he appreciates and delivers thoughts instead of focusing his attention on words; it is necessary that he be furnished with knowledge which will help him to help himself, instead of depending on his teacher for every one of the thousand words which he may meet. Whether the third-grade pupil learns his multiplication table by adding two's, or by piling up two-inch blocks, or by measuring off two-inch sections on the yardstick, or by counting groups of two apples, or by committing the facts to memory as you and I did, does not seem to me, in the last analysis, a vital point, provided he has a level-headed, keen, interested teacher; but if he is ever to perform problems involving typical business transactions, it is extremely necessary that those same facts be rooted and grounded in his memory—and at the time, too, when his word-memory is strongest. Definite general directions rarely cripple a teacher, especially if she understands that a valid objection or a reasonable experiment will meet with approval. "Why, you can't find a teacher who wishes any more freedom than that," said a leader among the free lances; "the person who keeps on talking about freedom isn't a teacher, but someone who wants you to have freedom to do as he says."

The assistant not only interprets the course of study and helps teachers

to work more out of it than any printed page can ever work in; but from seeing it in operation, and from considering it thru others' eyes, he comes to realize how it needs to be modified, either to meet certain local conditions, or to adapt itself to the present educational creed. A language scheme in English which is admirably planned for your sons may prove Greek to the children of the Ghetto; or the *course* may call for quotation marks in the third grade; but if the children are calling for stories and pictures and games, the marks had best be promoted to fifth grade. In all such matters the assistant has an especially liberal background for action.

In spite of the fact that very many seem to remain in the service for a long period, supervising officers realize that the schools are actually taught by a body of workers who pass thru the grades in a long procession. After any five years the percentage of change is about 75, and the percentage of new material 45. Yet the school system must do more than maintain an average; it must adjust itself to a population which is ever increasing in quantity and decreasing in intellectual quality; and it must continually conform to current educational findings. Superintendents in large cities would wrestle with an impossible task if the friction caused by constant change was not overcome thru the efforts of assistants whose knowledge of details is minute, and whose time can be placed at the disposal of teachers who are meeting new problems in organization, instruction, or discipline. The intimate familiarity of an assistant with the conditions pertaining in certain quarters will often enable a teacher to accomplish in a single week tasks which could scarcely have been analyzed and arranged for in a month. No teacher is too thoroly experienced not to welcome the help of a man whose knowledge of the situation can make rough places plain. In this connection, then, the assistant represents a force which prevents the loss of time and energy incident to change. Moreover, most city vacancies are filled either by recent graduates of normal schools, by college graduates with no experience, or by the most enterprising teachers from the small towns and rural schools. The members of each group are blessed with youth, ambition, purpose, and zeal; but each needs the counsel and advice which flow from long and intelligent experience. When the novice faces a condition and not a theory, a dozen difficulties which she could not foresee take form, and a dozen others which she might never see lurk in ambush. The assistant should be a right-hand man to these beginners, helping them to distinguish between the substantial and the showy, to do thoro teaching, to secure reliable results, to interpret their experience, and to avoid pitfalls. He can meet them in conference, and pour oil on the wheels of the first month's difficulties; he can anticipate questions which all are waiting to ask; he can teach with the teacher and for the teacher, thus enlarging her plan or changing her prospective; he can discuss individual methods and emergency cases. Not infrequently by suggestion, advice, and correction he can raise the standard in individual rooms from *below* to *above* the average.

It is imperative that a certain time each week be set apart for office hours, so that each member of the force knows when she may be sure of a hearing.

The effect of an assistant on the temper of the schools depends primarily on the spirit of the worker. I am inclined to believe that we too often magnify method, and overlook manner or, more truly, character. Whether his visit be long or short, whether he go with or without a notebook, whether he teach the class or listen, whether he commend, suggest, or correct, is of small moment, provided he stands to the teacher for a loyal, kindly, helpful, interested friend—and in the long run of the years he will stand for exactly what he is.

"How did you know that Hercules was a god?" "Because I was content the moment my eye fell on him. When I beheld Theseus, I desired that I might see him offer battle, or at least guide his horse in the chariot race; but Hercules did not wait for contest, he conquered whether he stood, or walked, or sat, or whatsoever thing he did."

Less speedily perhaps, but not less surely, comes the verdict which labels each of us. Go in the spirit of a critic, and if you smile and say nothing, you leave an uncomfortable atmosphere behind you; go as a helper, and a direct criticism meets with ready appreciation, and leaves no scar. Any teacher worth her hire recognizes the visitor who is as quick to see merit as defect, who is more willing to mention improvement than failure, who is more eager to serve than to be served. There is rarely a person who has not some well-defined characteristic excellence: the wise worker finds it, gives credit where it is due, and seeks to develop each teacher along the line of least resistance.

"You have often helped me by appreciating what was good. I wonder if you think I'd mind a scolding. Don't you wish to tell me today about something dreadful?"

"Yes, I do feel like making a criticism. I can't magnify the point into something dreadful; but there is a little fox that spoils a good many of your vines."

Now, the talk which followed opened no chasm between the assistant and a particularly sensitive, high-spirited girl; it rather cemented bonds of friendship. A single sentence from Superintendent Blodgett's address at Cincinnati epitomizes the whole story: "Teachers need the helpfulness that reaches them from honest hearts, friendly hands, and plain words."

The kindliest sympathy, the readiest tact, and the most constructive suggestions are not incompatible with searching insight, nor, on occasion, with straightforward criticism. There came a time when Nathan dropped his allegory and faced David with four words of condemnation: "Thou art the man!" So in this business of supervision there come times when no sugar coat should sweeten the medicine. "Do you think I shall ever get a first-grade room?" said a notoriously lazy teacher immediately after such a vacancy had been filled. "I know you never will until you come to school every morning prepared for your day's work." Or again: "You feel disappointed; but I can't say much for a teacher whose voice and manner show petulance and arbitrary decision, and whose lessons do not ring true." The above may represent

the unusual measures, but my contention is that on every city pay-roll there appear the names of teachers who do not stand for honest effort, and whose constructive criticism must be preceded by what seems destructive and drastic. The great majority are earnest, hard-working, ambitious, trustworthy persons, but interviews with the unscrupulous, the indolent, the intolerant, or the hopelessly incompetent are among the disagreeable duties which face every public servant and which must be met without flinching.

Any influence which helps the teacher toward higher ideals and sounder results must, of course, react on the pupils, but a direct benefit accrues to them from the frequent visits of any interested expert. His coming should enliven the routine, his praise should be sweet to their ears, his intimations regarding desired ends should be a goal to strive toward, his disappointment a thing to be regretted. So long as older people crave human companionship and appreciation, it is safe to assume that children receive a wholesome spur by feeling an interest in their room and their achievement as a body which is not bounded by the school fence nor the district lines. "The children have learned a new song for you." "We have a new picture since you visited us." "The third class wish you to see if they are doing better in reading." "Children, what was that fine news about attendance which you had to tell?" "Our regular language lesson was to be a story reproduction, but I promised the children that whenever you came they might tell about their visit to the stone quarry." Scores of such remarks give evidence of a healthful desire on the part of pupils to do well, to give pleasure, and to earn commendation.

If kindly relations exist between special teachers and the assistant, he can be an invaluable help to them by co-operating with them to secure good results in season and out of season, and by preventing their subjects from becoming sharply defined and empirical. His plan of work should be known to them, and theirs to him. Any difference of opinion should be settled out of the presence of the teacher who is quick to exaggerate a minor difference of opinion into serious disagreement between doctors. Frequent consultations should lead to full understanding, and in the main to concerted action. I am inclined to think that the main argument against supervision gains force because we who dictate appear to vary more widely in our directions than we actually differ in our beliefs. Such a course should be sharply reversed: after compromise, directions should harmonize, however much opinions may remain at variance. Circulars and pamphlets on which special teachers and the assistant have worked together possess peculiar force. He should report teachers who need prompt help along special lines; he should note good and poor instruction here as elsewhere; and he should be as interested in these results as in those of what we are wont to call the *regular branches*.

The assistant, in common with all school officials, over and above his routine duty as a public servant owes a special duty to the public. A well-regulated school system managed by professional educators is always ahead

of the community at large in both method and outlook. Now, unless school needs and school aims are understood by the people, a gulf widens between them which is finally bridged only by criticism and protests from "taxpayer." The assistant should lend a hand to any undertaking which dignifies his office, or which seeks to establish points of contact between the public schools and the public they serve. If there be parents' meetings, he had better attend; if there be mothers' clubs, he had better speak when asked; if the Sunday-school teachers wish an address, he had better give it; if someone asks the rather dubious question "What do you do *anyway*?" he had better explain himself in simple, indisputable terms, so that mothers and fathers shall grow to feel that no community should be without him.

Lastly, then, remembering at the same moment the great public in the background, and pupils, teachers, and co-workers in the foreground, I should like to mention the assistant as one whose personality and work will add to the sum of zeal and enthusiasm which should radiate from the office of a superintendent of schools.

III. THE MANAGEMENT OF SPECIAL DEPARTMENTS

C. N. KENDALL, SUPERINTENDENT OF SCHOOLS, INDIANAPOLIS, IND.

The special department appeared when the necessity of broadening the curriculum appeared. The regular teacher was generally unprepared to teach the special subject, so the special teacher was brought in. The subjects were often novel and external. They were sometimes dragged in bodily, either at the demand of the public, or by the fiat of school boards and superintendents.

What attempt was made to educate the public to the importance of these subjects—a public clinging to the traditional view of the common-school curriculum? What attempt was made to prepare teachers to teach the new branch or branches? What adjustment was attempted of the old to the new in the course of study and in the organization of the school? What effort was made to secure a supervisor or director or special teacher with broad academic scholarship and with pedagogical training? The answers to these questions are factors affecting the management of special subjects, and determine whether they are to be permanently educative or temporary and sporadic. No pretense is made that these questions are to be answered this morning to the satisfaction of everybody or anybody. Only a few observations are offered bearing upon the questions, and therefore, if my premise is sound, upon the management of special departments.

The management is far easier if public opinion sustains the teaching of the subject. The education of this opinion sometimes requires more patience than the education of the children themselves; but it is hardly less important, if there is to be permanence and stability, and the hue and cry of fads avoided. I believe the education of this sentiment is one of the most important and

difficult of the superintendent's duties, and one which is most likely to be neglected.

When we can secure the co-operation of a few influential men and women of the community, the support of two or three newspapers to whose opinion the public listens, the influence of clubs—clubs of the gentler sort—the indorsement of a chamber of commerce perhaps, we have taken a long step in the direction of making outside conditions favorable to successful management.

In one city it was proposed to introduce cooking or domestic science into the schools. Only one kitchen or school was established, altho perhaps a half-dozen were required to take care of all the seventh-grade girls. Whether public sentiment sustained this movement was uncertain; but, to make it relatively certain, a series of luncheons was arranged, to which, from time to time, men and women were invited. The luncheons prepared by the pupils were appetizing, the teacher was a young woman of refinement, and the kitchen was open for inspection. In this way were secured the interest and active co-operation of these fifty people.

I suppose that we who are in the thick of educational movements little realize how far we may have left behind ordinary public sentiment as regards the course of study.

The management is affected by the training, the education, and the standards of the regular teachers. This training begins or should begin, in the high school, with those young women who are to become teachers, or who think they are. In the high school should begin instruction in music, in drawing, in color, in hand-work, in physical training, in natural science. In the theoretical department of the normal school, whether city or state, this training should continue; a half-day each week perhaps, to be given to drawing and the various forms of art-work, under the direction, of course, of the supervisor of drawing; an hour each week in learning to read music, in the cultivation of the singing voice and of the choice of songs; a half-day each week in manual training; an afternoon to nature study, including field excursions; two hours a week to physical training and the training of the voice; an hour each week in learning how to teach penmanship.

There is nothing subtle about the pedagogy of the special subjects. It is no more difficult to teach music or drawing than division of fractions, but one must know how to divide fractions, to read music, or to use the pencil, before he can do any effective teaching of any of these. As any teacher should, broadly speaking, endeavor to make himself useless to his pupils, so should the supervisor, by education of teachers, make them less dependent.

Considerable time in the training school therefore should be used in acquiring facility in the arts named. Pedagogical training will be of little real value to a teacher who finds herself called upon to teach technical subjects without any training in these subjects.

Teachers should not be expected to teach things they know nothing about.

Teachers' meetings in which little is done other than talking about drawing, music, nature study, penmanship, or physical training should give way to meetings in which some of the time is spent in practice. The week before the schools open may wisely be used in this kind of teachers' institute. Afternoon meetings during the term, when the schools are dismissed—not too often, of course—when the teachers take off their shawls and bonnets and are prepared to do a good afternoon's work; and special meetings on Saturday mornings for new and weak teachers, are practical means by which a corps of teachers may be educated.

For the time being, the young women should work at their desks as the children work at theirs, but here under the guidance or inspiration of the director. The vital thing in the management of these special departments is to have a corps of teachers who have been brought into first-hand relation with these subjects. This is essential and fundamental. The special teachers should, of course, teach lessons to children. If he teaches *all* lessons, the energies of the regular teacher are stunted, and there is no growth in his power or skill or equipment. To promote the growth of teachers, to enlarge their interests, to raise their standards, is no small part of the work of the director. If there is to be any vigor or life or spirit or interest, the teachers themselves must be on the move in the same direction as the children. The management should work constantly, patiently, and judiciously with this end in view, bearing in mind, of course, the limitations upon the teacher's strength and endurance and ability.

The better the training of the regular teacher in the special branches, the broader will be her view, the greater the unity of all subjects, the more will correlation be practiced, the more is economy in the organization of the school day in evidence, and, withal, the less will be the danger of side-tracking either the regular or the special subjects.

In visits to schools the special teacher should give more of his time to some teachers than to others. Some teachers need little of the so-called special supervision; others need constant help. If this be so, then it is a manifestly wasteful process for the supervisor to divide his time equally among teachers, rooms, or buildings. Therefore, a supervisor working by mere rote among teachers, without regard to their varying degrees of efficiency, is not working, in my judgment, at the maximum of his efficiency. He should be a co-operative officer with the superintendent. His business is to promote the efficiency of the schools, particularly along his own line of work, incidentally along all lines of work. If there is a weak spot, he should go there. If this half-day can best be spent looking at the penmanship papers from his own schools or from those of other cities, he should do that. If the drawing in a particular building is weak, then he should focus his attention there.

I am assuming that the supervisor is a person you can trust. I am also assuming that the superintendent shall exercise some directive power over

his movements and how he shall distribute his time and his work. The superintendent of schools will not distribute his own time equally among his teachers, unless he wishes to be a mere piece of mechanism or a nuisance. He goes to poor teachers to strengthen and suggest. He goes to strong teachers for ideals, for standards, and for inspiration. The supervisor should be allowed to work on similar lines.

The danger of specialization is overemphasis in one direction—the magnifying of the subject and the subordination of the child, who is the being to be educated. How can this evil be minimized?

First, by teachers who know something of the subjects, and a specialist who is really competent. A young woman appears as an applicant for a supervisorship of music. What is her training? She names a well-known conservatory of music. Of what college or university is she a graduate? None. Of what normal school? Not any. Of what high school? "I left at the end of the first year." What experience as a teacher? None at all. What pedagogical books have been read? The reply, of course, is negative, with the mental reservation that the question is absurd. Is it good management to employ such a person? On the other hand, here is a music supervisor with college training; a penmanship teacher who is a normal-school graduate, and one who has given time to the systematic study of children. Here is a penmanship teacher who has taken a course of lectures in a university or college; an elementary-science director who is called to the pedagogical department of a leading woman's college; a manual-training supervisor who has taken a degree at a college and has spent two summers studying art; a physical-training teacher who has studied at Yale with Anderson, at Harvard with Sargent, who has been abroad to study the German and Swedish systems at first hand; an art director who has been successively a grade teacher, a school principal, a graduate of an art school, and a constant student of art. These are not fanciful cases, but real ones, not in any one system of schools, but in selected instances from several systems of schools. Broad-minded persons are likely to see things in relation. When the specialist regards his field of work as restricted to his subject, when he blindly fails to see its relation to other subjects, there is a chance that he may be regarded as an interloper, especially when his salary is one or two or three times as great as that of the regular teacher.

So far I have discussed the question from the point of view of those cities which have supervisors or special teachers. Some of the problems of management would disappear if the supervisor or director were competent, and recognized as such by the teaching body. But how can the small town with limited funds employ a supervisor who will also be a leader and an inspiration to teachers? An answer may be found in two or more neighboring towns combining and engaging a good man or woman to divide his time among them. Objections of a practical sort may be suggested, but they are not insurmountable. This is the day of combination and organization

in economic lines; indeed, this plan is in operation in several parts of the country. The supervisor of penmanship in New Haven supervises, not only the work in New Haven, but that in West Haven, in Middletown, and in two of the three Connecticut normal schools. Good results are obtained in each place. Each secures the services of a two-thousand-dollar man. Middletown, a place of twelve thousand inhabitants, alone would hardly pay two thousand dollars a year for penmanship. Not so much attention can be given to each individual room in the city of New Haven as when the supervisor gave his attention exclusively to the schools of that city, but many rooms do not need such personal supervision.

Might not a similar plan be carried out in other subjects and in other places? The combination of several towns in Massachusetts in employing superintendents is a well-known application of the principle of organization and combination in order to secure good ability. There is, in my judgment, danger of too much time spent in the schools by the supervisor in the small city, if you accept my proposition that a supervisor should not be a teacher of children merely, but of teachers as well. Here are four small cities, each paying seven hundred dollars a year for a supervisor of drawing, or twenty-eight hundred dollars. Why should not these towns combine, offering a salary of, say, two thousand dollars—a net saving of eight hundred dollars—and secure a director who is far abler than any one of the seven-hundred-dollar teachers? The teachers in each of these four towns might then have a real leader. They would gradually feel able to do a considerable part of the work themselves. This would not only promote their own growth, but would result in the unification of subjects. Where a supervisor gives all the instruction in music, and the regular teacher during the process sits back of her desk as a mere spectator, you will, in the long run, create stagnation in the teacher's growth, and have nothing like correlation of studies, and the instruction in music will not be so good as by the other process.

The management of the special departments calls for some adjustment of the special subjects to other subjects of study. There is no need in this presence to speak of the growing importance of the correlation of studies. New subjects almost press themselves upon us, and school hours remain the same.

I have time to mention only a few instances of attempts at correlation which have come under my observation. The supervisor of penmanship examines systematically the daily written work of pupils, and confers with teachers about it, whether they teach penmanship or not.

The physical-training teacher and the manual-training supervisor co-operate in making apparatus for gymnastics. The physical-training teacher suggests games and plays for the recess, and earns his salary in making the recess a time of real recreation for girls as well as boys.

The manual-training department and the teacher of arithmetic co-operate in the study of measurements. A miniature house is built in the shop—a

model, by the way, of a house actually going up in the neighborhood. Observe the interest of the boys in the problems which relate to the cost of lumber for this house, cost of labor, of papering, of carpeting, of painting, and numerous other details.

Manual training and history: in the actual building of a model of the cotton gin, of a lock on a canal, of a model of the Parthenon, models of primitive agricultural implements, of the log cabin in which Lincoln lived, of the house at Mount Vernon, etc.

Manual training and the equipment of the school: a screen for a stove, a dictionary-holder, window-boxes, boxes to protect newly planted trees on the play grounds.

The drawing and manual-training departments, it is obvious, should work in active co-operation. The application of art, design, and color to the work in manual training is a field of correlation relatively new, it is true, but bound to grow as we realize in this country the necessity of making the useful also beautiful. In my own city the manual-training and the art teachers spend two hours each week working together. The art teachers, at one time, work in the manual-training shop, and the manual-training teachers, at another, study constructive and decorative design with the art teachers.

Nature study and the art department: The teacher of nature study without color or design to reinforce her work depends upon language only for expression. I know of one director of art who distributes flower seeds thruout the schools; the subsequent results are used by the teachers in exercises which are both drawing and nature study.

The field excursion is at once a lesson in geography, in nature study, and in drawing, if the teachers are working in co-operation, as some teachers do.

The competent and tactful director of art will revolutionize school decorations, as many of us know.

The illustrated composition gives new life to a subject often of little interest to pupils. The director of art can make profitable suggestions in meetings of teachers with this end in view. The director of art who sees the wide relation of his subject with other school subjects will be no stranger in meetings called to discuss English or history or geography.

The management of the special department, as it has been reviewed, depends upon healthy public sentiment; upon the training, equipment, and ideals of teachers; upon competent directors—directors who are leaders, who know how to create intelligent interest, and who are willing to co-operate in adjusting the special subject to the school organization and to the child; and, finally, upon relations of confidence between the superintendent and the head of each special department.

DISCUSSION

E. E. Bass, superintendent of schools, Greenville, Miss.—The paper has spoken for our large cities and for the more densely populated states of the North. It has covered the ground so thoroly and well that along those lines there is little left for me to add. However, I represent a class of schools of the smaller cities peculiar to the South, too far apart to combine and avail themselves of the services of an expert teacher of the special studies, as suggested. How are they to broaden and enrich their courses of study? My answer is: The superintendent or principal must become the expert. He must feel the need of the subject for his school, and must be able to demonstrate that need. He must become an enthusiast for physical culture, for art, for manual training; but let him not forget that he must temper his enthusiasm with patience.

I have in mind two cities in the same state, about one hundred miles apart, which introduced physical culture and vocal music at about the same time. The first, the larger and richer city of the two, added these subjects without opposition. The experiment seemed to have worked well. I was surprised to find that both were dropped from the course at the end of the first year. The patrons of the school were delighted, the teachers and pupils enjoyed the work of the special teachers, and yet after fourteen years the subjects have never been reintroduced. Why? Because the man behind the system knew little of them and had no real enthusiastic desire for their continuance.

By way of contrast, let me give the experience of the smaller city. The superintendent saw gymnastics and vocal music taught in other schools. He recognized that they were good things, and determined to have them for his own school. His board said: "We have not the funds to employ a special teacher." Not to be overcome by slight opposition, he mastered a system of gymnastics, and then taught it to both teachers and pupils. There were some croakers in that neck of the woods, and the subject of their croaking was this: "That man is making our girls bend their bodies to the detriment of their physical beauty." At the very first intimation of this and similar opposition, he determined to get on his side public opinion—that very essential commodity, which the paper has so well pointed out. He asked the children to invite their parents and friends Friday afternoon to an outdoor performance. The children of all the schools went through the manual, and there went up a shout of approval that killed the croakers in the first ditch; and today that school has a teacher specially trained by Dr. Anderson, of Yale, and there is more likelihood of tearing out one of the beloved three R's by its roots than of taking gymnastics out of that school course. So it has been with vocal music. Let me say that the superintendent must not only appreciate the importance of the special subjects, but he must have the tact and backbone to put them into execution.

Back in the 80's, when Colonel Parker went about in that region as a lion, seeking whom he might devour; when there was a chaotic state of doing and making, of molding and modeling, of painting and imaging, I was infected with the art microbe, and I took it home. The board said: "We can't afford a special teacher." I did the next best thing. I introduced a system which I knew was very thoroly wooden, and yet it was the entering wedge by which I could make an opening for better things. Greenville has not only been infected, but we have spread art malady to several of our sister-cities, and I believe the day is not far distant when all of the schools in Mississippi will have special teachers of art. I can say this, that, so far as the Greenville schools are concerned, it's place is quite as well fixed as is that of any other common-school study. We no longer look upon it as a specialty, but consider it a staple.

The introduction of manual training into the Greenville schools has been so recent, and my last encounter with opposition so new, that it may be set down as a current event. I shall confine my remarks to the opposition to the introduction of sewing. The board said: "Already our course is infringing upon the common-school studies; there is no time;" and again: "Sewing should be taught at home; you are trespassing upon the

work of the mothers." I pleaded for a trial and got it. Now the problem was, first, to prove that no time was lost to arithmetic, language, etc., but that there was an actual gain; second, that the homes were really made better and brought nearer to the school by this manual art. I said to my teachers: "The teaching of seven stitches and the making of garments are trivial matters compared with the things that sewing must do for these girls."

We had the children get from their fathers, or from friends, the actual cost of producing a bale of cotton. They took no one result, but from a summary got the average. This is an important item in sociology, that no one man can establish the price or cost of a commodity. From this they got the actual cost of producing a pound of raw material. We then had them go to the field and actually pick a pound of cotton, noting the time. They separated the lint from the seed. These operations brought them into contact with labor and wages, and made them appreciate what work meant. It impressed upon them the great importance of the cotton gin and the debt they owed to Eli Whitney, from whose brain that useful machine came, and to whom the South owes a magnificient monument in marble or brass.

We had them buy cailco and gingham, not by the yard, but by the pound. They equated the pound of the raw material with the finished product, and compared the profits earned by the producer with those earned by the manufacturer. Thus we started them on a problem for life.

Washington's birthday we celebrate in our schools with the purpose of inculcating patriotism. This year I had the above data charted and made a display of the arithmetical and manual-training work of our children as a part of the celebration. I left for Atlanta before the conclusion of the day's program, but I was there long enough to see that mothers and fathers had been convinced that manual training did not consume, or take away from, other studies; and that it did not infringe upon the domain of home, but rather had the effect to make better pupils, better citizens, and better keepers of home.

In conclusion, whenever I find a subject taught in Boston or California schools, that I believe to have a real worth, it has been and ever will be my aim to get that subject in my own schools; for I believe that the best is none too good for the children of our Southland.

THE EXTENSION OF PUBLIC-SCHOOL PRIVILEGES

I. THE ORGANIZATION OF A SYSTEM OF EVENING SCHOOLS

THOMAS M. BALLIET, SUPERINTENDENT OF SCHOOLS, SPRINGFIELD, MASS.

A system of public evening schools must differ in certain important respects from a system of day schools, and many of the defects of our evening schools are due to the fact that these points of difference have not been sufficiently recognized by school authorities.

In the first place, the two kinds of schools must differ to a considerable extent in aim and purpose. The day school is attended by immature boys and girls, for whom the most important consideration is that they should grow up physically strong, and acquire that general education which will develop mind and character and lay the foundation for special training later. While the day school should be practical and not ignore the demands

of daily life, its chief aim must be to give its pupils general rather than special training. On the other hand, the evening school is attended mostly by mature young men and women, who are employed during the day in some gainful occupation, and with whom attendance at school in the evening is incidental to their daily work. A limited number of these attend an evening school for the purpose of broadening their general education, and for such ample provision should be made in our evening schools for instruction in the studies pursued in the elementary and secondary day schools; but the large majority of evening-school students have a more directly utilitarian aim, and can be interested only in such studies and in such phases of studies, as have either a quite direct bearing on their daily work or will fit them to do a different kind of work which is more remunerative. Their chief object is to increase their earning capacity.

The dominant aim of a system of evening schools must therefore be practical in the utilitarian sense. While such schools must give an opportunity to those who desire it to pursue studies for general culture, they must also provide for special training to an extent impracticable, if not undesirable, in day schools.

In the second place, the course of study of an evening school must be different in some essential respects from that of a day school. Attendance at the day schools is compulsory, or ought to be, for the majority of pupils; at the evening school it is wholly voluntary in most states. In a day school studies may be made compulsory, and, in fact, are made compulsory in all elementary schools and in some secondary schools. Persons who attend an evening school not only do so voluntarily, but most of them come for a definite purpose, to learn some specific thing. If the school does not give them what they most want, even if it is not what, in the judgment of the teacher, they most need; or if the school fails or neglects to ascertain what they want, as is not infrequently the case, such persons will soon drop out. While there should be a definite plan pursued in an evening school, which may be outlined on paper in the form of a course of study, a rigid adherence to a fixed course, such as is prescribed for day schools, is undesirable and will inevitably reduce the attendance.

In the third place, the work of the evening school must differ not a little in method from that of the day schools. In the day schools each subject is developed systematically from beginning to end, and the various phases of it are presented in the order in which they are most readily apprehended by the immature mind, regardless of whether they have a direct bearing on practical life or not; in an evening school even the most backward students are mature, and this order need not be adhered to at all to the same extent, nor is it always desirable to develop a study systematically. In the case of mature students, who come to study a specific thing to help them in their daily work, only so much of the subject should be taught as is necessary to make intelligible the special point in which they are immediately interested.

Very often such narrow interest can be made the means of arousing a broader interest in the general subject and in other subjects. The point which I desire to emphasize is that, in order to secure and hold a large attendance in our evening schools, we must ascertain the wants as well as the needs of students, and then try to broaden these wants until they become identical with their needs, instead of forcing upon them arbitrarily what we may think they should study and so drive them out of school. Such a policy would materially increase the attendance in our evening schools.

In the fourth place, the evening school must differ somewhat from the day school in the grading and classification of its students. Grading and classification are necessary in evening schools to make them effective. While more individual instruction, especially in elementary evening schools, is necessary than in day schools, all instruction which can be given to an entire class should be so given. The ungraded evening school is as wasteful of time and energy as the ungraded day school. But while this is true, the principle of grading and classification must not be the same in the two kinds of schools. In the day schools pupils are classified according to their knowledge and ability alone; in an evening school age and occupation should be largely taken into account. Many men, and not a few women, would attend an elementary evening school, if they could be allowed to join classes of adults, and would not be obliged to be seated in the same class with boys and girls in their teens, who may be their neighbors' sons and daughters, and who, having but recently left the day schools, may be able to answer questions more readily and appear more intelligent than themselves. When you place in the same class persons of equal intellectual ability and education, but differing by almost a generation from one another in point of age, the older members will not remain very long; and yet this is precisely what is done in many evening schools.

Moreover, in classifying students in an evening school, in so far as may be possible, those of the same or closely related occupations or trades should be grouped together. This does not apply so much to classes in which the aim of the instruction is general culture as to classes in which the instruction can be given a quite direct bearing on the occupation of the members. In such cases it is desirable that the teacher be familiar with the occupation of his class as well as with his subject, and be able to apply the instruction to their daily work. This will involve the necessity of employing more men as teachers than are now employed.

A large number of men who might attend public evening schools free of charge are attending the evening classes at the Young Men's Christian Associations thruout the country, and are paying a fee large enough to cover all cost of instruction, mainly because the public evening schools ignore these two principles of classification.

So much as to the general aim and character of the public evening school. What different kinds of schools should be included in a system of evening schools?

1. There is need of elementary evening schools, such as are now found in many cities, in which instruction may be given in the so-called "common branches." Such schools should enable boys and girls, and young men and women, who were obliged to leave the elementary day schools before completing the course in order to "go to work," to continue their general education. This function of the elementary evening school is similar to that of the so-called "continuation school" in England and Germany. Our elementary evening school has, however, another function to perform which, on account of our large foreign immigration, is in point of importance scarcely second to this. I refer to the instruction of adult foreigners in the English language, in American history, and in civics. As the public day school is the most effective means of Americanizing the children who come from foreign lands to our shores in such large numbers every year, so the public evening school should be made the institution which shall Americanize their parents by teaching them our language, our history, and the principles of our government. In order to attract these foreigners to our evening schools, those of each separate nationality should at first be placed in classes by themselves, and given a teacher who can speak their own language and can make them feel at home; and such teacher's tenure of service should be made dependent on his ability to secure and retain a large attendance in his classes. As soon as they have mastered the language sufficiently, they should receive all their instruction in English, and should be mingled with other classes to prevent the fostering of a spirit of clannishness.

2. There is need of evening high schools in which instruction may be provided in the usual high-school studies, for the purpose of giving students who were obliged to enter practical life at the close of their grammar-school course an opportunity to broaden their general education. This feature of the evening high school would correspond to the higher grades of continuation schools in foreign countries. But the evening high school should also provide instruction of a vocational or technical character, for the benefit of men and women who are employed in the daytime in technical lines of work, and who are in need of such academic training as will have a direct bearing on their special work. Such evening high schools should provide courses in bookkeeping, stenography, typewriting, and other commercial branches; they should include instruction, not only in pure mathematics for general culture, but also in applied mathematics, in which all the varied applications of both the elementary and advanced mathematics may be made to the different lines of mechanical and scientific work. They should include classes in applied chemistry in which men engaged in technical work in different manufacturing establishments in which a knowledge of chemistry is essential may receive thoro technical instruction in this branch. There should be classes organized in applied physics and in mechanics, for the benefit of men employed in the mechanical trades and in various manufacturing establishments in which mechanical work of a high grade is done.

It is thru such schools that foreign countries are training their skilled workmen in the theoretical phases of their work to an extent not realized in this country. Both the manufacturing interests and skilled workmen of our country demand that more provision should be made for such technical instruction in our public evening schools.

3. There should be evening schools in cooking, sewing, dressmaking, and millinery, for the benefit of young women who are obliged to earn their living by unskilled and underpaid labor in the daytime, and for whom such instruction is the only means by which they can fit themselves to do skilled labor for which they can secure higher remuneration.

4. There should be organized in every city evening schools for the teaching of free-hand drawing, designing, modeling, carving, house decoration, and various other forms of industrial art, for which there may be a demand in the community. The instruction, except in the elements of free-hand drawing, should be given, as a rule, not by professional teachers, but by persons who have had thoro technical training in the particular form of applied art to be taught, and who have had practical experience in the industry to which the art is to be applied. In other words, the instruction should be given by highly trained specialists who have had practical experience in some productive industry of applied art.

5. There should be established on a large scale evening schools for the teaching of mechanical drawing in all its manifold applications to architecture, the mechanical industries, and the various mechanical trades. While such schools exist today in many cities, the instruction is for the most part very elementary in character, and does not appeal to any but beginners. The teachers are usually professional teachers of drawing instead of practical draftsmen, and have but a theoretical knowledge of the trades and industries to which their instruction should be applied. While all students may profitably be placed together in a class to be taught the elementary principles of the subject, for the advanced instruction they should be grouped in classes according to their trades or occupations; and the teacher should be a person who not only knows drafting, but who also has a practical knowledge of the trade or occupation of the members of his class. This is the plan on which the best drafting schools in foreign countires are organized, and the superiority of their work and their large attendance prove its correctness.

6. There is great need of the organization of evening trade schools in all our cities of considerable size. In this respect our own country lags far behind the progressive countries of continental Europe. The city of Berlin alone has twenty-eight evening schools, nearly all of which are strictly trade schools, attended by over twenty-five thousand students. Trade schools of almost every variety, both as day schools and as evening schools, may be found in all the principal cities of the German empire and of France, and in the manufacturing centers of most of the other countries of western Europe.

The fierce competition in the markets of the world will soon force upon us also the necessity of providing more thoro training for the skilled labor employed in our own industries.

The particular trades to be taught in any given community should be determined largely by the local industries; in this way there would naturally develop in different cities a variety of schools, differing not a little in character, each of which would meet in an economical manner a limited variety of local needs. Such schools need therefore not necessarily involve the teaching of many trades in any one community, nor become a financial burden to the taxpayers. In all cities in which there is a manual-training high school, provision can be made, at comparatively small expense, for the teaching of a number of the mechanical trades by using the equipments of the shops of these schools, which would otherwise be idle after the session of the day school. The teachers in such a trade school must be men who have learned the trade which they are to teach and have had practical experience in it. The teacher of manual training who has never actually learned a trade is not qualified to give instruction in trades in such a school.

In admitting students, preference should be given to men already employed at their trade, but who have never had an opportunity in the shop of learning more than a small part of it, and who come to such a school for the purpose of broadening their mechanical education. The training of such men in the shops in which they learned their trade in many cases has been confined to the running of a single machine, and has consequently been so narrow that the learning of the complete trade is to them a liberal education. The evening trade school should meet the needs of such men, and of young apprentices, before it admits boys and young men not engaged in productive labor in the daytime, for whom provision should be made for instruction in trades in a day school.

I would emphasize the importance of giving preference to journeymen and apprentices in such schools, both as a matter of right and as a matter of policy. Men already engaged at their trade have, as a rule, families dependent upon them, and ought to have every opportunity that can be given them to increase their earning capacity. Moreover, apprentices have entered upon their trade as their life-work, and ought to have the preference over other boys, who in many cases would enter a trade school in which the instruction is free without any serious purpose, and without any intention of pursuing the trade as a life-work. As a matter of policy I would urge it, because any trade school which would flood the labor market with surplus labor would be likely to incur at once the opposition of the labor unions. A school which gives the preference to men already engaged at their trade, either as apprentices or as journeymen, will have the support of the employers of labor because it trains their workmen to do a better quality of work, and it will win the favor of the labor unions because it trains their members to do a higher grade of work, and enables them to obtain

higher wages, instead of flooding the market with surplus labor and depressing wages.

7. I wish finally to call attention to the necessity of providing a special school for the married women of our foreign population in the large cities, who find it impossible to attend an evening school because of their families, but who would be able to attend a school in the afternoon when their children are cared for in school. Such afternoon classes should be established in every school building in the foreign quarters of our large cities, and instruction should be given in the reading and writing of the English language, in the rudiments of arithemetic, in personal hygiene and household sanitation, and, if possible, in cooking and sewing. Much of the work that is now done by various charitable societies, by social settlements, and by numerous other agencies could be done legitimately, and far more economically, thru the existing machinery of the public schools. All educational work which must be done for the public good should be done at the public expense.

II. ADULT EDUCATION

HENRY M. LEIPZIGER, SUPERVISOR OF LECTURES, BOARD OF EDUCATION, NEW YORK CITY

We are co-workers in the cause of the education of a democracy; and when we reflect on the power which public opinion exerts today—that the will of the people is virtually the will of God—we see how important it is that public opinion should be sound and sane, and that the democracy which wields the power shall wield it in obedience to lofty ideals and pure motives.

It is being seen that the history of the world is not the history of dynasties, but the story of the people, and that to each individual man there is a mission. Up to the very beginning of the last century, education, even of the most limited sort, was the privilege of a very few. It is only seventy years since primary education was made public in Boston. It was only as a result of the defeat by Napoleon at Jena that the Prussian government heeded the counsel of Fichte and began its superb system of universal education; while the common school system in England dates only from 1870. During the present generation, what a marvelous development in educational lines there has been: the spread of the kindergarten, the increase of secondary schools, the increase in institutions for the liberal education of women, the spread of the free library and the free museum of art and science, all having as their purpose what?—the emancipation of the individual man and woman, in order that he and she may be free.

The extension of the public school in great cities has during the past ten years taken on all of the following additions, tho elementary evening schools have been longer in operation: first, elementary evening schools, where the rudiments are taught to those who are obliged early to begin bread-earning; second, evening high schools, where advanced studies are taught.

All these schools are not yet as thoroly organized as the day high school. In New York city the elementary evening-school term is ninety nights; beginning this year, school is held but four nights weekly. The evening high-school term is one hundred and twenty nights. The school term begins about October 1. There are elementary schools and high schools (evening) for young men and young women.

A striking feature in New York is the instruction given to foreigners. To acquaint them with English, instruction is given in Yiddish, Russian, Italian, and other languages.

The most recent extension of the public school has been the establishment of vacation schools, originally an experiment of a philanthropic society. The excellent work done, and the need of it being done, were recognized by the city authorities, and now vacation schools and playgrounds form part of the school system of our great city. Special directors, under the supervision of a district superintendent specially assigned, insures the educational character of the work.

The course of study is so arranged as to call into play the manual and artistic skill of the pupils. There are roof gardens where music is played, and baths where swimming is taught. As many of the exercises as possible are done in the open air.

The further extension of the use of the public school has been the establishment of playgrounds and recreation centers in schoolhouses in the thickly settled districts. In these playgrounds the games of the children are directed and physical exercises taught. In the recreation centers amusement is provided in the shape of innocent games and small selected libraries.

The extension of the uses of the school in the ways that I have mentioned is for those who either attend school or are very near the school age. There seems to be little doubt as to the wisdom of ingrafting them on the educational system. The admission, however, has broadened our understanding of what the word "school" once meant. The question now arises: Shall the education furnished by the state end with the high school or the university; or shall the state furnish opportunity for the continuance of education to those whose school life has been limited, or who acquire, later in life, some yearning for higher things? In other words, shall we not now be compelled to admit that man needs knowledge, not alone as a means of livelihood, but as a means of life?

A friend of mine, a librarian, tells me that a little boy went into one of the circulating libraries of the city and said he wanted a book called *How to Get Educated and How to Keep So.* Unconsciously, he spoke a great truth. It is one thing to get educated, and it is another thing to stay so. The school gives us the beginning of education, but some provision for adult education is necessary to enable us to stay so.

Mark Twain, in one of his happy moments, said: "If you repeat a lie long enough, it becomes history." Paraphrasing that apparently sage aphor-

ism, we say that, if you repeat the truth often enough, it becomes a fact. No more clearly is this seen than in the growth and development of the free lecture system in New York city, the thirteenth season of which has just begun. We can now hardly realize how we moved from one part of the city to the other in the days of the horse car; similarly we can hardly imagine New York city without its provision for adult education, known as the "Free Lecture Course." Without pomp, parade, and with little advertising, it has won its way, and is regarded by the taxpayer of our city as one of the most judicious of civic investments. Compared with material construction, how insignificant is the expenditure for the wealth of intellectual and moral inspiration, gathered from the treasures of talented men and women, and distributed among our citizens, for the making not only of a greater, but also a better, New York! And its success has been so genuine, its growth so steady, its popularity so marked, and it has been so adaptable to each city in the land, that the lecture system of New York may seem to mark the crowning glory of public-school extension.

Let me briefly state what it is. Its underlying principle is this, that "education should be a means of livelihood, and that education should be unending;" that the adult's taste can be cultivated as well as the child's; that the work of instruction and education begun in the elementary school must be continued and completed. Of the school population of our land about 3 per cent. attend the high schools, and less than 1½ per cent. the colleges, universities, and professional schools. The great body of our citizens has but limited education, and the very persons best fitted to profit by education, and who need it most, are in most cases denied its beneficent influence. Those most in need of it are between fourteen and twenty years—the time of adolescence, when conscience is disturbed, when character is being formed. At that time all the safeguards of true culture must be put around youth. Then there is that large class of mature people who have a knowledge of practical life, and who appreciate the value of education most keenly. It is from such a class that our students—I call them that rightly—of electricity, of physics, and of history are recruited. A lecturer on physics wrote to me the other day: "The questions put by my hearers were, as a rule, more intelligent than are asked inside of many a college."

Fourteen years ago the system was tentatively introduced into six schoolhouses. Now there are more than one hundred and forty places where systematic courses of lectures are given, and to the 4,200 lectures during the past season there came a total of more than 1,200,000 listeners. Begun in the old city of New York, by the operation of the new charter it is now part of the educational system of the city, and its influence is extended to every borough, so that not alone in the various halls of Manhattan is the lecturer heard, but even on Rockaway Beach he may be found contending with the roar of the waves, like Demosthenes of old.

The fact should be emphasized here and always that this is a movement

for the education of adults. Ample provision is now made for kindergartens, elementary schools, secondary schools, and colleges. New York is the pioneer in this noteworthy movement for the education of grown-ups. Each year the sum appropriated for the worthy purpose has been increased; for the free-lecture movement has won the appreciation, not alone of the people, but also of the student of education. Bear in mind the fact that, according to good authorities, but 6 per cent. of the people of this country are systematically educated after leaving the common schools, so that the inclusion of a provision for adult education in our educational chapter is one of the most noteworthy deeds performed in the last decade of the nineteenth century.

That there is a large body of men and women who believe that they are not too old to learn is proved by the figures to which I have referred. They are volunteer students. They come not "like snails unwillingly to school," but come rather to realize the original idea of school as a place of recreation and leisure. It is a movement to afford complete opportunity for education to teach the truth that it must extend thru life, that it is not to be concentrated into a few years, but that the stimulus shall grow and increase in power with the years. The people are awakening to the fact that education is a continuous performance; that the school gives the alphabet, but that the word must be formed during life. It is a movement to give men and women whose lives are lives of monotonous labor a wider outlook, and to bring them, in the most interesting form, in touch with the principles of science and recent discoveries, with the result of travel, and with the delight of music, literature, and art.

A very gratifying feature evidenced during the course of the past twelve years has been the increasing demands made by the audiences which have been trained. The courses of lectures are arranged at many centers systematically. At one center, fifty lectures on history and literature were given. At another, each Saturday night, for the past four years, a lecture on some subject in natural science has been given. At a third center, subjects relating to education have been the chief theme. It has been delightful to note the increasing number of those who wish to pursue a subject more thoroly, and who take pleasure in the application of the best methods that characterize the university.

The audiences have been mostly adults — in many cases entirely so. Interesting it is to see, in a meeting-place like Cooper Union or the Institute in the Bowery, an audience composed almost entirely of men. Here the subject is perhaps political history or physical science. Where the subject is literature, or music, or art, or astronomy, the women predominate.

Continuity of attendance is noticeable, and in the letters sent to me by lecturers who have given courses the returning of the same faces has been observed. Some of the auditors have written to me that they have been regular attendants of these courses for the past six or seven years. Does

not such an evidence of continuity compare favorably with the attendance at any university or college in our land? Is not, in fact, the ideal of the university being realized? For both in ancient Greece and in mediæval Europe education was for the adult. And are we not taking a step in the right direction in preserving the harmony that should exist between all departments of education, in the restoration of a belief in the old ideal?

A course of eleven lectures on problems of education, in which six college presidents, the city superintendent of our schools, and other prominent educators took part, attracted an average audience of one thousand, while a course of lectures on "The Development of the Nation" found equal popularity. A course of twelve lectures on "Art History" was attended by an average audience of four hundred, and reading and questioning accompanied this course. The geography of the United States was exhaustively treated. Literature received its due proportion, one play of Shakespeare, *Othello*, being treated, to the great delight of the audience, in a course of six lectures. In the realm of music many lectures and recitals were given. A course of eighteen lectures, six of which included a course on the Wagner music dramas, was attended by auditors many of whom came long distances, while all the musical lectures appealed to delighted audiences. At two of the centers a course of eighteen lectures with practical exercises in singing was given with marked success. A course of eighteen lectures on "Electricity" at the West Side Auditorium drew an average attendance of 250—nearly all men who were engaged in work in which a knowledge of electricity would prove helpful.

I cannot do better than to read a few extracts from the hundreds of appreciative letters which I have received from the people:

A college graduate writes:

"I believe there are many who think the lectures are only for those who have not had an opportunity to receive a high-school or college education. The more intelligent the hearer, the greater the benefit derived. As to benefits received from these courses, they are too numerous to mention; but I can gladly say that through my knowledge of 'First Aid to the Injured' I have been of use to different persons, from taking a cinder out of the eye of an elevated-car conductor, to fixing up the sprain of a relation."

Another:

"I have attended seven years and noted the improvement in tone and quality. To learn is to live."

"I think it [music] is best suited to our locality, as they are all working people; there is nothing does a tired body more good."

"To keep up with all the lectures, I have read books."

"In connection with the lectures, I have re-opened my Shakespeare, opened my encyclopedia for the first time, although I have had them two years, and read Fiske's *Critical Period* and Channing's *History*."

"In placing before our minds new ideas that set us to thinking, and aiming at higher and nobler things than we have known in the past."

"I always look forward to them as a hungry person looks forward to a good meal."

One woman requests lectures on "How to Bring up Children." Another, who has attended forty lectures, writes:

"A busy and often very tired woman, unable to spare much time or sight for reading, gives thanks for the pleasure and comfort I have enjoyed through this means of instruction. I cannot adequately express my feelings."

Another writes:

"I have been going to school over again."

Another:

"The majority of us know nothing but paved streets and brick walls. Nature stands at our doors, but we know nothing of her. These lectures give us instruction and mental exhilaration."

And yet another:

"I shall try my best to pass the examination [referring to a course on "First Aid to the Injured"], although I am very absent-minded and nervous, having been a victim of typhoid fever a year ago, and of remittent fever last fall. If I fail, I shall at least have tried my best and learned something to my advantage. I cannot say anything in favor of the Monday lectures, as my husband only attends them, because I have three small children who cannot be left alone. I am glad my beloved spouse stays with them Thursday evenings, to grant me the benefit of the lectures."

This movement not only gives a broader and truer conception of the term "education," but is making a larger demand upon the equipment of the teacher; or shall we say, rather, will call into being a new kind of teacher, who will not only possess the gift of scholarship, but will combine with it the art of proper presentation and the gift of pleasing speech. He must not only have the power to teach, but the power to inspire. His must be the voice of the prophet, for it is his duty to awaken interest and to lead souls from "the lowlands of vulgarity, high up the mount where guile desolves in fire, that burns the dross away."

Judging by the results of the past ten years in our city, and by the many inquiries from all parts of our land, it would not seem improbable that ten years from now every great city in this Union will make provision for adult education, and that a class of teachers particularly adapted to dealing with the adult mind will come into being. Teachers are now classified into elementary teachers, secondary teachers, and university teachers; and the most gifted from the ranks of these should be selected to engage in the work of adult education. We are beginning to recognize more generally that education does not belong to either sex, or to any particular period of life.

It seems to me, therefore, that no more honorable task could be placed in the hands of the teacher than to stand before such audiences as gather in our schoolhouses and halls and bring them messages of truth. The teacher must be saturated with his subject. He must be a believer in the message which he is to deliver. I know of no more sacred task than that of the teacher in a democracy, organizing, as he does, public opinion, directing reading, stimulating thinking, and inspiring to the higher life; and, as some-

one has said, "the ideal teacher in a scheme of adult education must combine, with the university professor's knowledge, the novelist's versatility, the actor's elocution, the poet's imagination, and the preacher's fervor."

The term "adult education," it seems to me, is to be preferred to the term "university extension." University extension is included in the term "adult education," and is a portion of the means to that end. As heretofore practiced, all the teachers in the university-extension movement are connected with the university. The subjects are mainly confined to literature, history, and art, and the majority of the lectures are not given to what may be called "the working people." The free-lecture movement endeavors to secure the best-trained minds from the university, to illustrate the fact that the highest scholarship must be brought in touch with the people and to emphasize the belief that scholarship must go hand in hand with service, and that the duty of the university to the city and the state is to lift up our citizens toward higher ideals. But, in addition to those men who are connected with an organized university, there are men and women in the university of life who have traveled, have investigated, have observed; and they are included in our teaching staff, for they, too, have a message to deliver. Credentials alone cannot make the scholar or the teacher. Particularly in the realm of science is adult education comprehensive. It is to spread abroad the scientific spirit—the spirit of investigation, of observation, of accuracy, and of truth; that is the end to be aimed at. The scheme of adult education, then, taking the trained teacher with his potent word, stimulates to study and to reading. The personality of the speaker has not lessened in our time. As has been said, "No power in human experience has wrought such mighty results as the spoken word;" and the spoken word of the lecturer stimulates, not alone fine conversation, but reading of the best kind, and leads the hearer into that greatest of all universities—the public library.

The fact has been established that the people will come, and that the nation will go to school; so that there are now two kinds of lectures—one for larger audiences, where subjects which appeal to large bodies can be treated; and the other, more special in its nature, where those only will come who are interested in a particular subject. The entire winter, at some centers, should be devoted to but one or two subjects, and a definite course of reading and study should be followed. I am sure that by this time we have prepared some such body of students. The division satisfies those who are already prepared for higher study and those who are just entering on the appreciation of the delights of intellectual pleasure. For believing, as I do, in the educational purpose and value of these lectures, I also believe, to an extent, in their wisdom from the recreative side. The character of our pleasure is an index of our culture and our civilization. A nation whose favorite pastime is the bull-fight is hardly on a plane with one that finds pleasure in the lyceum lecture. So, if we can make the pleasure of our people consist in the delights of art, in the beauties of literature,

in the pursuit of science, or in the sweet influence of music, and gradually turn them away from so much in our midst that is lowering, are we not doing a real public service, and is not this theory the real foundation on which the support of the free public library rests? Is not refinement, too, one of the ends for which we are aiming—not alone knowledge, but culture; not alone light, but sweetness? And if we can turn our youth from the street corners to the school playground, transformed into a temple of learning, are we not helping to that end?

One thing can positively be stated: As a result of this lecture movement —for it is a movement, since it is full of life—there is a constantly growing element, in this New York of ours, that is looking for intellectual and spiritual guidance, that welcomes the knowledge of the scientist, is moved by the skill of the artist, is touched by the words of the orator, and is inspired by all to loftier lives. And it seems to me that the men who spend their lives in accumulating knowledge, in adding to the world's treasury of wisdom, should find the greatest delight in its dissemination.

It has given me the greatest pleasure to receive from university professors, who in the beginning looked with some slight scorn at the attempt to popularize knowledge, letters in which they now admit their change of view. They certainly have carried out the advice of one of the speakers at a certain college dinner to some professors, that they "should rise superior to their superiority."

The scholar owes his highest duty to the state. It is his duty to do what he can to raise the moral tone of the community in which he lives; to be of it, not above it; not to be lost in the mass, but to help leaven it. And never was that duty more demanded than in a great democracy; for our republic is still on trial. Nobly is it weathering the gales that beset it; for the popular conscience has always responded to the right. So, I say, the highest duty that our scholars can perform is to bring their knowledge and raise the average. We have faith in democracy, and we believe that thru popular education, as Mr. Larned says, "the knowledge of the learned, the wisdom of the thoughtful, and the conscience of the upright will some day be common enough to prevail over every factious folly and every mischievous movement that evil minds or ignorance can set astir."

The university is the steward of the wisdom of the past, and part of its duty is to spread that knowledge, to diffuse it, to bring in all possible ways its treasures within the reach of the masses. Thus will the university be a veritable light- and power-house. For we believe, as has has been well said, that the period of mental plasticity is lengthening. Men do not fossilize so early in life as they once did. There are more men who are capable of expanding and changing their opinions at an advanced age than was once the case. In this respect Gladstone is not so much the prodigy of the era, but paving a way as the herald of that which is just begun.

Not alone has there been given a new interpretation to education and to

the teacher, but a new definition of school has come into being. A schoolhouse is no longer closed at three o'clock daily, but is open at all hours, summer and winter. Ten years ago there were, it is true, elementary evening schools and two or three high schools. Now the schoolhouses are open, not alone for free lectures, but for recreation centers, play centers, libraries, and vacation schools.

Why not carry this conception of the schoolhouse even a little farther? You may walk in portions of our city where block after block consists of tenement-houses, many of these occupied by hundreds of human beings. Little that is sightly attracts the eye; and yet in the midst of these unsightly blocks one comes upon a splendid school building, whose doors are closed. It is Sunday. The authorities of this city are now considering the proper means of grappling with the excise law; how to recognize the demands of human nature and obedience to public betterment. You close the saloon. Where shall the youth of the city in these districts gather? Why should not the schoolhouse be open on Sunday afternoon, and in its main hall the people gather to listen to an uplifting lecture of a biographical, historical, or judicial nature? Would not such use of our school buildings be justified? Why should settlements need to exist at all? Why should not the schoolhouse represent all that is best in the so-called social settlement; and why should not every man and woman engaged in the work of public education be fired with the same spirit which is said to make the settlement worker? It seems to me that the tendency should be toward including in the public education all that is best in the movements for philanthropy which seem to mark our time. It is gratifying indeed to find an increasing response on the part of the churches in this work. Schoolhouses are in many cases unsuited for adult education; and the committee on lectures at a recent meeting took a wise step in recommending to the building committee that in all buildings hereafter to be erected by the board of education provision should be made for adult education, and that a proper auditorium, with proper seats for adults, should be provided.

There is an added value in the establishment of a lecture system for adults in our schools. The whole object in the maintenance of our schools hitherto has been the education of minors. Generally, when our children reach the age of fourteen or sixteen, they have been weaned from the schoolhouse. How few adults ever visit the scene of their school days! By the extension of the school, in the ways to which I have referred, it is made to extend its enlightening influence to the old as well as to the young, and the school becomes, not only, as Horace Mann says, "a nursery for children," but a place of intelligent resort for men. The school will no longer be an institution for diffusing the mere rudiments of knowledge, but for the bountiful diffusion of knowledge itself.

There should be no necessity for citizens, desiring to add to their culture, sitting either in the low and ill-ventilated and unattractive school-yard, or

climbing sixty or seventy steps to sit upon a bench built only for children; so that a change in the construction of our schoolhouses may result from the expansion of this use.

The gratuitous use of church halls for lecture purposes is a most significant sign of the times. Church work must by this means increase in efficiency. The church has for its purpose the strengthening of morality, and as true enlightenment breeds morality, it surely approves of spreading the gospel of the free-lecture movement. "Let there be light."

The experiment of the platform library—i. e., of books being distributed freely from the platform—was successfully made. An examination was held at the close of the series, and after each lecture critical and intelligent questions were put to the lecturer by interested auditors. Part of the series was repeated in another section of the city. Three lecturers were engaged in giving a course of five lectures on "First Aid to the Injured." This course being the same that is given for the instruction of policemen.

The libraries feel the impetus created by the demand for good books; and as a result the public is being educated to the importance of the free circulating libraries.

The lectures on science enable the visitor to the Museum of Natural History to look with different eyes on the collections; and those on art prepare men and women for the proper appreciation of our collections of paintings and sculpture. So an interest in life has been given to many. To some the lectures have proved the only bright spot in a cheerless existence; to others, a social factor; and to others, refining influences. The boisterous youth has been toned down, and those who came to scoff remained to learn.

Summing up the value of this movement, it may be said, first, that the free-lecture movement has broadened the meaning of education, and forms a continuation school in the very best sense; it enables the professor to come in touch with the people; it reaches all classes of society, for the audiences are as democratic as all intellectual gatherings should be; it binds together the high and the low in education; it brings culture in touch with the uncultured and produces the true solidarity of the spiritual life. Secondly, it has given a new meaning to the uses and possibilities of the schoolhouse; and, finally, its chief purpose is spiritual and not commercial.

The lectures do indeed increase the productive power of the listener, do add to his stock of information; but their true end is to saturate the people with ideals. Without ideals one cannot live. It is by the help of noble ideals that purity and peace are given to masses of our fellow-men; and to help in shaping the ideals of a democracy is the purpose of adult education.

Year by year our system will improve. Year by year more gifted men and women will come to these great aggregations which gather in cities, and leaven the whole lump by their uplifting message. In these days of shorter hours and larger opportunities, the toilers will find in adult education the stimulus for the gratification of their intellectual desires, and thru

the means of this movement a larger world will be given them to live in. The best characters in literature will be brought to influence them; their daily labor will be transformed into a noble task; new joy will come into their lives from this association of literature and science and art; this influence will affect their homes and their lives; and it will be found that the true joys of life do not come from wealth, but from sympathy with and appreciation of the bounties and wonders of nature that lie round us.

Adult education is just in its infancy, and it seems to me that in the future one of the chief jewels in our civic crown will be this movement for the education of the masses.

May the other cities of our land deal as generously as New York has, and may the work of adult education go on, freeing thousands from error, year by year, and so bringing nearer that ideal city in which all of us would fain dwell!

III. UNIVERSITY EXTENSION FOR TEACHERS IN SERVICE

R. H. HALSEY, PRESIDENT, STATE NORMAL SCHOOL, OSHKOSH, WIS.

During the past twenty years school officials have been paying much more attention relatively to the preparation of those intending to become teachers than to increasing the efficiency of those already engaged in teaching. There is no doubt that if we cannot, with the means at our command, accomplish both results, the former, as the more elementary, is the more important. But there is no good reason for our not giving due attention to the agencies by which the training of the teacher is secured while in service as well as previous to entering upon service. The problem that has confronted the superintendent in his effort to help his assistant teachers to gain greater skill and broader culture has been the old one of trying to put thirty hours of work into a twenty-four-hour day. The requirements upon the average grade teacher have been such as to leave her neither time, strength, nor disposition for a systematic course of reading and study that shall give her a greater professional efficiency, or the larger usefulness that comes from pursuing studies purely cultural. If we would secure the greatest degree of serviceableness from a corps of teachers, we must reduce to a minimum the amount of purely clerical work that is demanded of them, the number of exercise papers to be corrected; and we must bring it to pass that the teacher is enabled to turn her back upon the school building each afternoon with her school-work finished for the day. What work she undertakes after that should be of a nature that will tend to refresh her instead of exhausting her for the duties of the next day. For this reason it seems to me that a teacher is likely to do more efficient work who is carrying along with her daily school duties two distinct lines of study—one of a professional nature, and the other an academic branch, undertaken, not for its immediate service in her schoolroom, but because she feels that, by gaining the larger outlook

upon life which a purely cultural study is likely to give, she will come back to her school-work rested each day by the consciousness of increased knowledge and multiplied power. School officers have not always been quick to recognize the value of the culture studies to the teachers in their actual work in the schoolroom. We have been much more ready to admit the value of a course in pedagogical methods in particular subjects, or, to the teacher in the secondary school, a course in physics, biology, or whatever branch he may be teaching, than of a course that would appeal equally to the person not a teacher—a course of study that would help to give him a clearer insight into some of the graver problems of society.

I shall not undertake to enlarge upon the value of university extension in general. This movement may be safely said to have passed the experimental stage in its history and to be nearing the time of larger harvests. It is with the movement directly aimed at providing the opportunity for teachers in active service to carry on one or more courses side by side with their regular school-work that I am concerned. Inquiry from the registrars of higher educational institutions in about twenty of our largest cities develops the fact that there are eight such institutions now offering from eight to seventy-eight regular courses more especially intended for teachers. I do not include in this enumeration the valuable summer schools maintained by many of our universities in which courses for teachers are provided. These eight institutions are the University of Chicago, the University of Cincinnati, Columbia University, New York University, Northwestern University, the University of Pennsylvania, Rochester University, and Yale University. About three thousand five hundred teachers are enrolled in the extension classes of these eight universities. Five report that they find teachers preferring the academic to the professional line of work. In all but one regular attendance is required upon classes, and an examination at the close of each course is also required. Two do not recognize the work done in such classes as a portion of the work required for a degree, but the other six willingly grant it such recognition. One reports that work done in the university in this way is recognized by the school authorities; two say that it is encouraged; one says that it secures preference in appointment and promotion for the teachers; one states that it secures exemption for a teacher from regular teachers' examinations; two do not know that it receives any recognition whatever from local school authorities; and one says that these authorities do not recognize such university work on the part of the teacher in any way whatever.

Probably the most noteworthy instance of such extension work is that undertaken during the past two years in the city of Chicago on the initiative of Superintendent Cooley, and largely under the tuition of the faculty of the Chicago Normal School. Seventy-six courses were offered, the school authorities holding themselves in readiness to start a class in any quarter of the city convenient for the teachers indicating their desire to join such

class, and offering to provide such instruction as the members of the class might elect. Nearly three thousand of Chicago's teachers have availed themselves of this privilege. It is to me one of the most hopeful signs of intellectual and professional awakening on the part of a large body of teachers, to note the spirit with which the Chicago teachers have seized the opportunity thus afforded them for increasing their effectiveness in the public service.

It would seem that some recognition of a teacher's desire to fit herself better for her school-work should be accorded, and therefore we are not surprised to find the authorities in both New York and Chicago rewarding these teachers by making the maximum salaries for teachers who have successfully completed a number of courses in these extension classes higher than that attainable by teachers who depend upon length of service alone to reach their maximum of efficiency. The regulation of the Chicago board of education upon this subject reads as follows:

> Teachers in elementary schools are promoted from the second to the first group of salaries by a vote of the board of education, on recommendation of the superintendent of schools, and those teachers are eligible for such recommendation and promotion who have reached the maximum salary of the second group, and who shall receive upon the promotional examination a final mark of at least 80 per cent., made up of three items, which shall receive equal credit, as follows: (*a*) efficiency mark for the preceding year, as equalized by the board of district superintendents; (*b*) mark obtained upon the professional study paper of the promotional examination; and (*c*) mark obtained on the academic paper of the promotional examination, provided that no examination mark below 70 shall be considered.

A plan similar to that adopted by these two cities is certain to appeal to school officials who are looking anxiously for some systematic course for their teachers to pursue, to replace the old haphazard plan of individual study. Still more strongly will it recommend itself in places where the superintendent has had reason to feel that one of the most serious evils threatening his schools was the lack of incentive for teachers to improve themselves in a broad way.

Altho the conditions favorable to the formation of extension classes are more evident in a large city, yet opportunity for participation in such advantages are by no means limited to the teachers of such a system. One of the greatest improvements in our modern system of university education is the manner in which thru extension lectures and classes "Mahomet has come to the mountain."

There is every reason why a body of teachers in a smaller center should avail itself of the privilege of securing a lecturer from the nearest university and pursuing extension work along some line that may be attractive to the largest number of teachers. It is a good thing if the teachers shall simply attend these lectures, absorbing what they can of the carefully prepared and presented material. It is a better thing if they will organize a class in connection with these lectures, and do thoro and systematic work in prepara-

tion for each meeting of the class. It is still better if they come to see that these short courses of six lectures each give but a bare introduction to the subject, and the desire to gain something of a mastery of the subject leads them to extend the number of lectures upon one subject to eighteen or thirty-six, so that the course actually runs thruout the school year, and thus legitimate university or collegiate work may be carried on. This latter plan of a more extended, in place of the "synoptic," course of lectures is one of the noteworthy features of the extension work for teachers as planned and carried out by Teachers College in New York.

A number of the universities offering courses in science to bodies of teachers at a distance have provided that the lecturer should not only deliver a lecture, but should also conduct a field excursion, so as to demonstrate the subjects of the successive lectures.

If it does not seem feasible to adopt one or more of the lecture-study courses for a body of teachers as a whole, there is no good reason why individual teachers should not be encouraged to carry on this work in the correspondence-study department which has been organized in several of the universities previously named. The University of Chicago reports that 87 per cent. of those carrying on such work in its classes are teachers. This plan has the advantage of allowing a much wider range of choice on the part of the individual teacher in the selection of the line of study to be undertaken; but, on the other hand, it loses in inspiration what it gains in freedom. It is at a disadvantage in much the same way as is the work of the student under a private tutor when compared with work undertaken in a class of vigorous students of about the same degree of advancement. Nevertheless, it is unquestionably true that much valuable help has come thru the agency of the study classes to teachers already in service, who were so situated as to be beyond the reach of the regular lecture classes of the extension work.

Time will not permit more than a passing mention of another most valuable source of training for teachers thru the summer schools, such as those conducted by Harvard, Cornell, Tennessee, Minnesota, and other universities. Altho these are not technically classed under the term "university extension," yet they are very properly considered as a very efficient means of extending the university influence and privileges to teachers now in service. The number of teachers actually receiving training from such schools is much larger than that taking teachers' courses in the regular university-extension work.

The university values the opportunity afforded it to reach the public thru classes of teachers. It is true that in most cases where extension work has been carried on among teachers the initiative has been taken by the teachers themselves rather than by the university. Thus we have a repetition of the history of the inception of the university-extension movement, which was with the general public rather than with the university. And yet the uni-

versity, conservative, slow to move in such matters, has come to realize that the innovation has been of great value to it. Next to its body of regular students, the university where extension work has been carried on among teachers, states that the classes of teachers furnish it with its most satisfactory constituency. This is but natural when one considers the movement in university circles of late years to bring higher education into closer touch with the general public.

We may thus look upon the attempt to bring university training to teachers in active service as one of the greatest value from the standpoint of both the public school and the university.

IV. VACATION SCHOOLS, PLAYGROUNDS, AND RECREATION CENTERS

MISS EVANGELINE E. WHITNEY, DISTRICT SUPERINTENDENT OF SCHOOLS, NEW YORK CITY

In cities the problem of unemployed adults always confronts the philanthropist; the problem of unemployed children is ever before the superintendent of schools. Custom has established for city schools a long vacation in the summer. Necessity has forced a large proportion of the city's inhabitants into cramped and straitened homes. What relation have the educational authorities to those who seldom see the country, to those whom narrow homes force to the streets in the evenings for recreation?

I think it a conservative statement that on every fair night in New York city, more than one hundred thousand children emerge from the tenements and wander up and down the streets seeking the excitement necessary for their circumscribed lives. During the early years of their lives a majority of them virtually live on the street. Ugly impressions are made which all the polish of high schools cannot obliterate. Even the street is often denied the children. The police and tradesmen drive them from their only playground, force them back into narrow alleys, and compel them to wait, like nocturnal birds, for the business world to sleep and to give them the right of way.

If we knew the life-stories of many of our criminals, we should find that the first act of rebellion against municipal law was prompted by revenge for interference with some childish sport, or was committed to outwit the policeman, whom they regard as the personification of tyranny.

To restore in part to childhood the pleasures which normal conditions would grant, the board of education of the city of New York has instituted recreation work and divided it into three departments: the vacation school, where manual training is the feature, for five mornings in the week, for a term of six weeks; the afternoon playground, where systematic sports are enjoyed for two months of the vacation; and the evening recreation centers, open all the year. The cost of this work during 1902 was $275,000.

VACATION SCHOOLS

These were fifty-four in number. The industries taught included basketry, benchwork, venetian iron work, chair-caning, carpentry, fret-sawing, whittling, work in burned wood and leather, sewing, embroidery, crocheting, millinery, and domestic science. Pupils who had attended previous vacation schools took advanced lessons. Some girls cut and made dresses for themselves, and a large number of boys showed so much skill in handling wood and iron as to suggest the natural fields of labor for them to enter.

In addition to this, we employ several trained nurses to instruct the "little mothers" in bathing and feeding babies, caring for the invalid, and giving first aid to the injured.

The immediate results are apparent in betterment of conditions in the tenements. Table cloths have been introduced where none were used, and families have gathered around the board and eaten a well-cooked dinner when our little housekeepers have from chaotic disorder evolved something akin to comfort. This means a great step toward civilization.

PLAYGROUNDS

The first week in July one hundred and ten playgrounds were organized. Some were in school-yards, some on roofs of schoolhouses, and others in parks, vacant lots, and on piers. As a typical one I shall select the ground room floor of a large school building, and ask you to enter and watch the two thousand children thru one afternoon.

It is one o'clock. The pianist has struck the welcome chord, and all the children assembled fall in line for the grand march. At a signal, the flag is saluted; then two or three patriotic songs are heartily sung, after which the order is given to "break ranks," and the boys go to one side of the yard and the girls to the other.

The various ball games attract a large number; others take gymnastic work. Some use the first hour for free play, when ropes, swings, bean bags, and ten pins are in demand. Attracted by music over in one corner, you become deeply interested in observing how the kindergartner makes her flock so happy. Some are playing ring games; others are shoveling and carting sand, building houses, having doll parties, or doing some one of the make-believe things so natural to their age. In a little while you notice that all over the ground groups have changed amusements. Here a number of girls are practicing calisthenics and fancy steps; yonder the champions of several athletic clubs are arranging for a tournament. Presently visitors from a neighboring school are announced who have come to measure swords with them. An exciting scene follows. They have their tug of war, basket-ball and gymnastic contests, and the victors are as proud of their triumphs as were the knights of olden times. The rest period comes; and you will see the principal gather a crowd of lads around him, and in his friendly talk some gentle reproof may be given for actions not quite honorable, followed by a

story of some real hero, who became such by patiently doing right. Some of the children have gone to an upper room, and they too listen to a story told by the librarian, designed to make imagination more active and aspirations more noble. A great many quiet games are now going on, and in the reading-room the story- and picture-books suffer no neglect. Those desiring to work are weaving raffia, modeling clay, or making scrap-books. All are happily busy; not a moment is lost in sighing for something to do.

It is five o'clock before you realize it. The brigade known as "white wings" is now pushing carts around the yard, gathering all the rubbish that has accumulated. Soon the last child has left the building, and you share in the weariness and in the pleasure of every one of them.

Another afternoon, when the heat is excessive, you may perchance visit the piers and divide your attention between the games of the children and the ever-changing panorama of the river, or at the swimming-pool watch the aspirants for this accomplishment receiving instruction from professional teachers.

If you go to the vacant lots temporarily equipped as playgrounds, or to the parks, where for the first time some of these children enjoy the luxury of treading bare ground, your sympathy in their pleasure will be keener than in any other place. To those who have never seen diminutive farms of eight or ten square feet there is something pathetic as well as amusing in the manifest delight of the two hundred boys elected to raise thereon radishes, corn, and potatoes.

We require every principal, gymnast, and kindergartner to sustain his reputation for ability and adaptation to his peculiar work. After the first week, they rarely have trouble, even with the most troublesome boys. The children are quick to recognize the dignity as well as the responsibility of belonging to a team; and they work with a will to maintain the honor of their own playground.

We have tried to show how at least two hundred thousand of New York's children spent a day last summer. Do we hear the question: "Watchman, what of the night?" If so, and if you are willing to climb six long flights of stairs to one of our school-roofs, we will introduce you to about three thousand as contented people as are often seen together. Many of them cannot speak a word of English, and you must needs be a remarkable linguist to converse in their native tongues with half of them. You scan their faces and begin to pick out racial types. Possibly you may count more than a score (we had twenty-three in one school). Then you wonder what motive has brought these mothers with their babies, these men and mischievous boys, these tired working-girls, into such a promiscuous assembly. The invigorating breezes suggest relief from the sweltering streets and foul odors of the tenements; but the voices of the night whisper that up here nearer the stars they all catch glimpses of a beautiful hope that is rarely seen in the dismal corners of life. The principal in charge of the roof sees that all his guests have a pleasant time.

A brass band is stationed on each of the eleven roofs, and as Dr. Frank Damrosch, director of music, supervised all the programs, we were sure of a musical treat every night. The last number is usually "America," and while listening to the hundreds of voices that sing "My country, 'tis of thee, Sweet land of liberty," the thought comes that, altho rough ore is here from the mines of many nations, much of which, even when freed from grosser elements, can become only like the amalgam in American coin, yet the magnet which will find every grain of metal is the power that changes misery into joy.

RECREATION CENTERS

The word "recreation" given to this activity means far more than amusement. While the play spirit is prominent in every center, fun is only a segment in the circle. Giving occupation to the idle and entertainment to the weary and training for future citizenship by developing the body, the mind, and the heart, is really creating a new life; and this is the aim and purpose of the recreation center.

A writer in the December *Century* has given such a graphic description of a boys' center that I think it may help those not familiar with the scene to look at it thru her eyes. She says:

> Pushing open the door into one of these play centers, the visitor meets a composite rush of sound like the roar of the ocean, and is confronted by a vast kaleidoscope of humanity which gradually resolves itself into figures, long and short, tidy and unkempt, Jew and gentile, of a thousand boys gathered at long tables all up and down the big room, playing checkers, dominoes, and other harmless games. Over in a corner a few little chaps are reading or with careful thought selecting books from a small library. In a room beyond athletic boys in all sorts of costumes are preparing under their director for a contest with another team.

This scene can be duplicated in twenty-three school buildings, tho in some of them girls instead of boys would appear in the picture.

The throngs that nightly sought admission made it necessary to exclude children under fourteen years of age. Our efforts are chiefly directed toward the working-girls and boys, who need these retreats to save them from the degrading amusements which too often appear to be their only alternative.

New York has the honor of organizing the first boys' club in the world. Its members were six as wicked little urchins as ever roamed the streets; but it has grown in these twenty-two years, and now has a membership of five thousand, exerting an influence in political and social life.

Hundreds of wild, rough boys living in New York city, if accosted, would proudly inform you that they belonged to "de gang." A peculiar bond of sympathy formed in early childhood often holds these lads together for years. If the arm of the law touches one member, the others resent it to the extent of doing all the evil deeds their united brains can concoct.

To get these gangs into a recreation center, offer them the use of warm well-lighted rooms, lead them to organize as clubs, formulate constitutions and by-laws, elect officers, and conduct regular business meetings, is the

work of the recreation center. Its teachers require a great deal of tact and much wisdom to handle successfully such material. The new environment differs from the cold street corner. Never before has the "gang" had a room in which to meet.

Physical comfort is the first appeal that touches them. Then follows a pride in their organization. The officers magnify their importance, and the members rigidly exact a faithful performance of duty from them. Parliamentary law becomes to them the most important thing in the world. The club director, who is always a visitor, pilots them when they get into difficult straits. To give them practice, he suggests simple subjects for debate, leading on to subjects which necessitate consulting reference-books. A reading and thinking habit is thus unconsciously formed, and soon these "gangs" are transformed into groups of young men having a purpose in life far different from that with which they entered.

Not all of our clubs are composed of this kind of material. We have large numbers of self-respecting youth, clerks, stenographers, and college students, who desire profitable recreation and find it in these centers. The public-school training they received enables them to form literary clubs where essays, recitations, and dramatic readings are finely rendered.

Music lovers naturally find one another. In one center we have two orchestras, and several glee clubs in others. After spending an hour together, the club goes either to the reading- or to the game-room or to the gymnasium.

Men of mature years find equal pleasure with their sons in the social life that is fostered in the evening center. Politics, current events, Old World reminiscences, and the trials connected with daily toil furnish ample subjects for dis ussion.

The circulating library travels from one center to another every month, and the tables have always been supplied with good magazines and papers.

The women are quite as enthusiastic as the men over their own clubs. They are fond of games and light gymnastics.

A principal, literary club worker, gymnast, and librarian constitute the executive force of each center. Many of them have a real missionary zeal, spending their leisure hours in a house-to-house visitation. This personal contact with the people is a mighty lever in lifting them to the ranks of self-respect.

Of the thousands of immigrants who tread our docks by far too large a proportion never go more than two miles from their landing-place. No city in the world has ever worked more strenuously to provide school accommodations for an ever-increasing population than the city of New York. The need is imperative, for every day one meets scores of men and women whose lives have been a failure because in childhood they were started on the wrong road. The recreation center touches more of this class probably than any other agency. Last year about six thousand people every night sought our hospitality.

We have already begun to introduce manual training in the centers and hope soon to extend the work.

Many a listless boy who does not know whether Georgia is east or west of Alabama has an innate love for measuring angles which, if cultivated, would enable him to survey a fine road thru this or any other state; but he is losing himself in the dark forest of poverty and uncongenial labor; and unless opportunity, such as we want our recreation centers to offer, can find him, he is defrauded of his rightful place in life. By the sensible interchange of work and play we should not only discover what the child can best do with his talents, but use these as agencies in breaking down the prejudices, customs, and superstitions which centuries of oppression have hardened in the minds of the toilers of the Old World.

Long after the Ottawa joins the St. Lawrence it keeps its own distinctive color, and the two streams refuse to mingle until they are churned into union by the rapids of Lachine. The blood of eastern and southern Europe gives a darker tinge to the cheek than is seen in the Anglo-Saxon race, and in thoughts and habits of life these races differ even more widely. We can never unite into one people a "congeries of races" until we teach them to speak our language, to read our books, to appreciate our institutions, and to find happiness in honest toil and wholesome recreation.

DISCUSSION

B. E. Nelson, superintendent of schools, Lincoln, Ill. — This subject is quite too broad, and the paper read is too suggestive, to make it possible, in the short ten minutes allotted to me, to attempt to do more than partly cover the topic and lightly touch the excellent paper just read. I shall therefore omit any reference to "recreation centers," simply because they have been most fully dealt with by Miss Whitney.

In the interesting experience related in *That Printer of Udells*, Uncle Bobbie Wicks announces to his wife at the breakfast table his new discovery "that some fellers go to the devil just because they ain't got nowheres else to go." The demoralizing influences in a large city, already suggested, confront us and hinder a decent degree of success in all of the work we attempt. The schoolmen of this country have seen the danger of long vacations for many years. Only a few have tried hard to apply the remedy. Thanks to Newark, New York, and Chicago, something has been done. The way is showing clearer, even while the dawn has hardly begun.

Scientific investigation shows that the child develops physically about three times as fast during the vacation months as during the school months. More plainly stated, he develops as much during three months of vacation as during nine months of school. Is this condition normal? Is it well for the child? Is there on this score demand for vacation schools or a readjustment of the school-work and school-year?

Thru the moral and physiological demand suggested, we are brought emphatically to the conclusion that from four to two months' absence from school means a loss to the child of something more than time only. It has been impossible for him to remain at rest on the upgrade, and now that the advance is again attempted it is found that the wheels have sunken well into the rut, the boxes have become dry, and the overcoming of inertia has become a problem. Much is lost. Is anything gained?

The summer months, in the business or commercial world, are not months of idleness, altho there may be sluggishness at times. Summer Chatauquas thrive even under tents much warmer than our buildings. Sunday schools—the dullest schools of the age—go on successfully. Churches modify their program somewhat and keep at work. The devil is not given the field.

In vacation schools the hours should be rearranged and shortened, the work made lighter and radically different, the liberties and priveleges of pupils increased, and out door work be always a factor. The teacher should be left free to use the time in any manner, and just so much of it as seems, under the circumstances, wise.

Here is my suggestion: Do away with the term "vacation schools" as soon as possible. It smacks of charity and private support. Talk and work for continuous-session schools. Arrange a course of study which shall contain about three months' work in nature study, drawing, and the manual and domestic arts. Let the school-year consist of twelve months, arranged so that one week out of school shall follow four weeks in school, except that two weeks out may be had in August and at Christmas time. Or, if thought better, let two weeks out follow two months in. I prefer the former suggestion.

Thus you have teachers in constant employment, and the salary would soon adjust itself to this condition. The teacher going thru the year should be no harder worked, and therefore as able to stand a year's occupation, under the new arrangement, as the business or professional man.

The pupil will thus develop normally, physically, and mentally. His development would come at the time for development, and the beginning of school again would not be such a trial. His mind would continue active and his memory good. He would save time.

With the course rearranged in the light of vacation-school experiences, the whole year would mean much more to him. There is not one change in the plan of the public schools demanded to meet the requirements of the vacation school that should not be made this minute, and determine the plan of all public schools now, anywhere. Whenever a special school, a special experiment, a special plan, demonstrates special aptitude for interesting, holding, helping, elevating the child, then it must be so that that plan makes one more link in the golden chain that should bind boy-life to school-life anywhere.

My special interest just now centers about the third division of this topic, and it was my desire to give most of my time in this discussion to the play-ground idea. To this I have given most thought. Put it aside as you will, treat it as indifferently as you please, yet the fact remains that the boy at play is the natural boy, and that at play that nature develops more rapidly and more deeply than while he compels attention upon his books. On the playground the dishonest boy cheats and lies, the bully bulldozes, the tyrant tyrannizes, the profane and vulgar reveals his nature at critical junctures. These are matters that the teacher only hears about. Here the vulgar and gentle, the leader and the led, the native-born and the foreign-bred, influence the one the other. Can that influence be safely and easily bettered?

It is a common remark that children soon after beginning school learn and know quite as much as is well for the mature brothers and sisters, even the father and mother to know. On this account, more than any other, teachers cognizant of this deplorable condition are never so anxious to start their children to school as are the parents less familiar with these conditions. This same state gives us our most serious disciplinary problems on the playground. If this statement is true, a duty is entailed and a solution called for.

Who said: "If I may write the songs of a nation, I care not who makes her laws"? And who, if not Macaulay, claims that Wellington won the battle of Waterloo on the playgrounds of Eton college? Tell me of a boy's play and I'll read you his character. Here he is himself. Here his likes and dislikes, his weakness and strength, his aptitudes

and faults, grow upon him as they are encouraged. Is it wrong to hold that an hour upon the playground does more to shape a life than an hour in the class-room? Do you know?

Why not let the teacher into the confidence of the child in the class-room, and then into his life on the playground? Can that be done? Schoolrooms are usually too small for school, and therefore too small for play, except under stress of unfavorable outdoor conditions. But at such times the teacher might throw off restraint and enter into the play, and thus into the confidence, of the children. The next step will be to do away with that educational annex, the playground, inclose all under one roof, and make the whole one structure, where the teacher is as much at home as she is in the class-room, and where the child will think her no more a stranger.

School gardens have come with a vengeance, and to stay until something better takes their place. Their strongest claims are the claims we set up for co-operative play—play that is co-operative only in the sense that suggestions rather than directions bring desired results. Nothing more is claimed for it. Such co-operation is always easily secured in a vacation school; then why not thruout the entire year? What objection is there to a closer relationship of pupil and teacher? The child under twelve rejoices in play with the father or mother. In the kindergarten work and play combine, or work thru play goes on. Can you tell me just when this close relationship between pupil and teacher should cease?

Have you noticed that immediately upon the appearance of a teacher who not only talks of children, but who loves children, they gather about and urge play of any sort. I am not sure to what extent the teacher may safely enter into play, but I feel that I do know how long she should be interested. In the high school the most popular teacher is the leader in athletic interest.

Make a child happy, and his tasks so lighten that there is no difficulty in interesting and teaching him. Coming in from honest play, he settles down to honest work and accomplishes honest results.

Let the interest of the teacher settle first about games for inclement days indoors. Here is an opportunity. Children should have recesses and recreation periods, but the practice of driving children outside during rough weather is barbarous.

There are scores of decent games that can be introduced into the schoolroom, not only interesting and enjoyable, but instructive as well. This last characteristic must not be insisted upon. It is not essential. With the teacher and pupil all ground should be neutral. The playground and schoolroom should be alike to both. Neither should be a stranger in either place. The appearance of a teacher on the playground is too often the signal for cessation of play while pupils crowd about to learn who now has been doing wrong and what the punishment is to be. Such a condition is deplorable, to say the least. This condition has grown thru a mistake in disciplining on the grounds, no doubt. The teacher who will win the pupils' toleration and co-operation will never criticise openly anything but serious infringement.

In Lincoln we expect half the teachers at each building to be on the grounds observing, suggesting, sometimes playing. Women umpire games of baseball, basket-ball, and even football. I saw one lady hopscotch so gracefully as to emphasize my awkwardness of twenty years ago. This absence from the building was our only suggestion. The other problems have arisen and have been met since.

The time is not left to emphasize or summarize these suggestions.

ROUND TABLES

ROUND TABLE OF STATE AND COUNTY SUPERINTENDENTS

THE RECOGNITION OF CERTIFICATES AND DIPLOMAS GRANTED (a) BY STATE AND COUNTY AUTHORITIES, (b) BY SCHOOLS OF EDUCATION

L. E. WOLFE, SUPERINTENDENT OF SCHOOLS, SAN ANTONIO, TEX.

The limits of this paper render it inexpedient to attempt to set forth the legal provisions in the different states relative to the recognition of certificates and diplomas. Suffice it to say that a large percentage of the states have some provisions on the subject; but these provisions are often inadequate, and difficult to put into practice. For instance, the state of Texas has a provision authorizing the granting of a permanent certificate to the holder of a diploma from an institution of a high order; but only after the applicant has taught three years in the state, and, of course, has already been obliged to undergo one or more examinations.

The first question of importance is security to the state recognizing or validating certificates and diplomas of other states. This security could be assured by limiting such recognition to state authorities and making the recognition optional with them. The state authorities could assure themselves of the teaching ability of the applicant by communicating directly with the superintendent familiar with the applicant's work, and of his scholarship by communicating with the board of examiners. As a condition of recognition, doubting Thomases among state authorities might be empowered to demand certified copies of examination manuscripts. Of course, fees would be charged the applicant sufficient to cover the expenses attending above inquiries and investigations.

From the above it is evident that state authorities can assure themselves beyond a reasonable doubt of the scholarship, teaching ability, and moral character of an applicant from another state. No good reason can be adduced why an applicant, often obliged to remove to another state on short notice, should be compelled to undergo an examination. Quite frequently the applicant goes to another state with an invalid relative in search of health. The applicant may be an excellent teacher; and yet just at the time that misfortune has increased the demand upon his earning power he is obliged to remain out of his chosen profession, or to spend time and energy in cramming for a certificate.

But I wish to base my reason for the recognition of certificates and diplomas upon the fundamental principles of sociology; namely, that the highest demand of society is a maximum of social service. But the teacher serves society best in preparing pupils for their life-work. At each step in life, whether in business, professional, or other occupation, one is confronted with a problem which calls for interpretation and solution thru the use of the means at hand—the known. In a word, he is best equipped for life who has formed the habit of most efficiently organizing his resources (the known) in the solution of life's problems. Therefore, the great aim of the teacher should be the formation in the pupil of the habit of using the known effectively in the acquisition of the unknown. The pupil who has for many years, self-actively, used the known in the acquisition of the unknown in school has so firmly fixed the habit that it follows him out into the problems of life. Only such teachers can do this as possess in a strong degree the power to organize the subject-matter of instruction. Therefore every available energy of the teacher should be dedicated to acquiring this organizing ability. Time spent in preparing for the average

examination is practically wasted. The efficient teacher does his best professional work in his daily preparation. No matter how often he has taught the same subject before, even to the same grade of pupils, he must again and again organize the subject anew, and breathe into it the breath of professional life.

Not only does it violate the principle of social service for an applicant from another state to be cramming for an examination, but likewise for applicants to be doing so in their own states. Who will estimate the amount of energy, time, and money wasted in preparing for examinations, taking these examinations, and passing upon the manuscripts! Instead of our present system of examinations—county, city, and state—together with the system of county summer normals, or institutes, there should be, in every state, a system of schools of methods, with pupil practice departments, dedicated to the organization of subject-matter and to self-active co-operative effort in the interest of the school, the home, and the community. The best available teaching power of the country should be placed in charge of these schools of methods.

All certificates now authorized or granted by state, county, and city boards should be issued by these schools of methods as an incident to the instruction. Certificates thus issued would be a much better index to teaching ability than those issued by the present system. In the first place, the boards issuing them would be much stronger. In the second place, these boards, during the several weeks' session of the school of methods, would be given much better opportunity to judge of the applicant's power to attack subjects pedagogically. The boards would also have opportunity to become acquainted with the teacher's personality, and finally to see him handle a class of pupils in the practice department.

But not only should schools of methods under state authority be utilized, but private schools of methods, summer schools thruout the land, and especially the great schools of education, such as the College of Education of the University of Chicago and the Teachers College of Columbia University. Many an ambitious teacher is prevented from spending a summer in these great schools by being obliged to renew his certificate in the grind of the county institute, with its accompanying examination. By all means, state authorities should be authorized to recognize certificates from schools of education and summer schools of high character.

These summer schools, instead of frittering away their time upon the promiscuous crowd of students who drift in upon them, should be permitted to devote their energies largely to carefully selected representatives from the different states, who would be able to carry back to their constituencies the educational reforms inculcated, and would become leaders in their respective communities. These representatives might be sent by counties, senatorial districts, congressional districts, or by county, district, or state associations; or they might be sent by state schools of methods, by cities and towns, or by men of wealth. It might be expedient to send them on condition that they donate a certain amount of instruction in local schools of method on their return. The schools of education would probably be willing to meet this movement by granting a limited number of free scholarships on properly guarded conditions.

In a word, it is proposed to take the energies now squandered upon certificate-getting and utilize it for gaining teaching power. The sacred demands of social service are that the energies now put forth in certificate mills be as unerringly dedicated to the good of the child as is the conscientious preparation by the teacher for his daily work.

DISCUSSION

State Superintendent G. W. Nash, of South Dakota.—This is an age of marvelous activity. The United States, our beloved country, is extending her power commercially and politically. In world-affairs she is outstripping her neighbors. But to

retain her proud position as leader in the affairs of the world, she must be pre-eminent educationally. Gratifying progress in education is noted in all the states. Georgia, Texas, Florida, and the Carolinas, with their sisters of the South, are in touch and sympathy with present-day advancement. States of the North now vie with one another in undertakings that count for genuine development. All commonwealths, east and west, are included in the general forward movement.

"In union there is strength"—educationally as otherwise—and we must unite our state educational plans into a tangible whole, if what we attempt is to be recognized as in any sense a national system. To establish national standards of qualification for those who shall teach in our public schools will be of substantial assistance in effecting the desired unity. The topic under discussion bears directly upon this general proposition and is, therefore, of great importance to the large body of American teachers who are well equipped scholastically for their responsible work. Shall the states of the Union remain petty educational monarchies, separated by walls of law, and given merely to the worship of local institutions; or shall they establish a national standard of excellence—neither too high nor too low—to which all sections may measure up and thus secure suitable recognition? This seems to be the question, and the biased manner in which I have stated it indicates my view-point. The query may be an old one—it may have been debated many times—and yet it is pertinent today. I entertain the belief that we should have general recognition of state certificates and life-diplomas. This concession should be made, no matter whether such credentials are based upon graduation from the advanced courses of accredited normal schools, upon completion of approved college and university courses leading to degrees, or upon passing examinations in certain required subjects.

Competent graduates of Harvard, Yale, Princeton, Columbia, Cornell, or of the State Universities of Michigan, Wisconsin, Minnesota, Missouri, Virginia, South Dakota, who have taken satisfactory courses in pedagogy, should be recognized everywhere as entitled to receive, without examination, licenses to teach. Universities, colleges, and normal schools of high grade located anywhere within the borders of our Union of states are entitled to due consideration, and their graduates should be encouraged to enter into educational leadership thruout the land. But who shall fix the standard and accredit schools? To such inquiry I reply that the national Commissioner of Education could fittingly perform such service. The Commissioner's judgment would naturally govern with the several state departments.

Some objector may advocate a less liberal policy. He may insist that the present New York or Nebraska attitude should prevail, and that teachers, regardless of training or experience, should serve successfully for a number of months in their adopted state before having original credentials recognized. But such contention seems to me untenable. It stamps as valueless everything except local examinations and experience, and discredits many courses and schools especially fitted to develop superior teachers. Its tendency would be to eliminate entirely the young blood. Is it just and fair thus to ignore advanced credentials, and to require that a teacher shall be put to the test and serve as a probationist? The law of comity demands that skilled teachers shall be permitted without embarrassment to pass beyond the borders of their own commonwealth.

It was my privilege last summer to communicate with the various state superintendents on this subject. Replies to my letters indicate a healthy sentiment in favor of interstate recognition of advanced teachers' certificates. "I believe in reciprocity along the line suggested, but regret to say that the laws of this state do not give the superintendent any latitude in the matter," is a typical answer. Several letters expressed a willingness on the part of superintendents to make certain concessions to the South Dakota department, provided that, in return, similar concessions should be granted. One would reciprocate on state certificates and life-diplomas granted purely on examination; another would agree to an exchange of courtesies based on certificates issued as a result of graduation from university, college, or normal school; and still another would join in an indis-

criminate recognition of state certificates of high grade. If one is to reciprocate along the various lines suggested, a definite policy is impossible, and exact justice to the individual teacher is out of the question.

Superintendents, generally, recognize the need for legislation upon the point at issue, and will, I believe, be willing to urge the passage of wise laws bearing upon the situation. The standard of education in South Dakota is high, yet we shall gladly raise it, if need be, so as to secure recognition under interstate reciprocity. If practically uniform laws governing the issuance of limited state and life certificates shall be secured, and if then, in generous mood, the state superintendents shall exercise their rights under such laws, one of the barriers to real educational progress in America will be removed.

INCREASING THE EFFICIENCY OF RURAL SCHOOLS

ARTHUR LEFEVRE, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, AUSTIN, TEX.

So many things are requisite for such efficiency of the rural schools as would even approximate practicable reforms that it would be futile to attempt to describe details in the time allowed. The problems are many-sided, and emphasis might be greatly varied as bearing more on skill in education as a process, or on the right essence of education as a result, or on administrative questions of ways and means. Whatever may be the point of emphasis, however, wise discussion of any aspect is possible only among those able and willing to consider each in the light of all. Perhaps few men can successfully specialize in more than one of the three departments; but whether he be teacher, or organizer of courses of study and executive officer in general, or representative and administrator of the social energies which furnish the physical basis, each, I say, needs intelligent sympathy with the functions of the others. Only when teachers, school superintendents, and educational boards work with such reciprocal comprehension can they cease to work at cross-purposes. As for state superintendents, is it possible for anyone of narrow interests to be a useful counselor and friend of all these, and in addition do his part toward arousing and guiding the social forces that supply the motive power which it is the business of teachers and school officers to apply? Truly, none is sufficient for these things; but in this heyday of specialization there is need to uphold the idea that in education specialization ought to be a matter of emphasis, not of exclusion.

Before any system of instruction can be rightly called educational, it must be ascertained, not merely whether its pupils have learned something, but whether they have been put on the way of education; for it is a process which lasts as long as life lasts. To be intelligently sympathetic with every sort of human activity is to be educated. Neither blind sympathy nor unsympathetic knowledge yields genuine education, but only the union of sympathy with knowledge. An essential object of the first stages of formal instruction is to awaken and maintain interest; of the last stage, to lead to independent investigation and judgment, nowhere tending to dry up the fountains of sympathy, nor to confine the waters of understanding from all save certain regions.

This ideal is not mentioned with any rhetorical purpose, but to indicate a potent line of action. To have ideals simply means to have a "clear head," to know the ends striven for. Effort without ideals is anarchy; effort under false ideals is thraldom. Every, practical exigency should be dealt with as such; but the true purpose ought to be kept in view.

It has often been shown that education, when it is dallied with or mistakenly attempted, is costly, troublesome, and skeptically regarded; but those who have perceived its true nature and aim never complain of its cost, never harbor a doubt about it. The high aim is the practical and efficient one, because all incidental utilities are included, and if inner qualification for the right use of wealth does not keep pace with its acquisition, society

plunges toward ruin like a runaway locomotive engine. We should never confine pleas for the proper support of schools, or for progressive educational enterprises, to the scope of a hard-headed debate with a close-fisted computer of pecuniary returns to the individual. It is the doom of selfishness that it cannot see clearly; and the people are not as selfish as they are supposed to be by many men who, while priding themselves on their practical sense, are blind to some of the most practical laws of nature and human nature.

It is the purpose of this round-table session to bring the fruits of experience and reflection to bear upon means of increasing the efficiency of those schools which belong to our vast expanses of rural life, the very foundations of the commonwealth. The four subheads for the discussion which is to follow this preliminary paper have been chosen by the designer of our program with wisdom and insight. They embrace all the phases of our problem, and pointedly bring out the need of considering each in the light of all, which has been responsible for my somewhat discursive introduction to the suggestions which I now offer under the four assigned heads.

I. CONSOLIDATION OF SCHOOLS

It is important that leaders should be able to look ahead, but it is almost equally important that a new movement should not be advocated until conditions have been ripened for it. The time seems to have come for the application all over this country, where suitable to local conditions, of a remedy for the peculiar embarrassments of rural schools. The remedy is no longer an experiment. In the execution of any design it is the individual that counts; but in so far as organization can secure results, every condition changed by normally developing consolidation is changed for the better.

The consolidation of rural schools is a broad administrative question requiring, as a condition precedent, the formation and guidance of an effective public opinion. It is only upon this phase of our first subtopic that it is fitting for me to speak in this company. In Texas I write and speak about consolidation, reporting as best I can the experience of others, and our State University and our College of Agriculture and Mechanics are responding to my appeals for bulletins giving detailed accounts of the work of leaders in this reform; but the movement in Texas is only in its inception.

In Texas we need no legislation on the subject. Compulsory laws ought to be avoided. If necessary, simply repeal restrictive, or enact permissive laws. Zeal for uniformity has wrought much damage in the educational work of states. I am opposed to compelling people to do things better left to their free will. Simply break the shackles and let the rural school districts be permitted to help themselves by consolidation and local taxation, where the majority of their citizens are so disposed. It would remain for us to inform the people of assured facts, in order that they may learn what the most satisfactory way of managing rural schools is, unless local conditions compel the continuance of weak little schools. We should not be in over-weening haste—that bane of many reformers. It is often profitable to reflect upon the long centuries which have led to the stadium at which we find ourselves. Misapplications of theory may thus be avoided; and each step could be a permanent advance.

II. IMPROVEMENTS IN COURSE OF STUDY AND SYSTEM OF GRADING

These problems of educational processes concern some of the ends of administrative measures like consolidation; but they in turn need to be dealt with as means to supreme aims. We consolidate in order to improve courses of study. We should frame courses of study, and make assignments of time for completing them, in order to develop the self-activity which is the object of any truly educational regimen, and in order to direct that self-activity to ma e suitable advances toward the comprehensive intelligence and sympathy and efficiency which belong to the full stature of a man.

It is one of the reasons for consolidating poor little rural schools, that it thereby

becomes feasible to provide suitable studies in subjects relating to agriculture, together with teachers capable of offering such instruction. No one need dream, however, that the complaints of those who are justly dissatisfied with the results of schools can be cured by so simple a remedy as changing the course of study. Such improvements make good teachers more effective, and may diminish stultifying effects of incompetent teachers; but there is no help for the results of attempts to educate the young by means of uneducated teachers hired at starvation wages, except to quit the absurd attempt.

Refreshment of courses of study, and especially a genuine correlation of subject-matter such as has never yet been attempted, demands now and will ever require the best efforts of the best schoolmen. There is more than time—priceless as time is—to be thus gained by the mutual reinforcement belonging to cognate studies. How neglected this means of increased efficiency has been is apparent upon the mere mention of present text-books, which almost completely ignore it.

The easiest and most definite improvement in prevailing systems of grading is to reduce the number of years assigned for the elementary course of study. The one advantage that the old-fashioned rural school has enjoyed is represented by the significant fact that pupils, there fitted to enter high schools, have been prepared in a much shorter time than the preposterous eight years of the city elementary school. Vital correlation of subject-matter of instruction must remain the chief means of improving and economizing teaching in the old-style country schools; but for the reformed rural school conditions of systematic grading will not differ materially from conditions in cities and towns. Such is one of the chief claims, and justly so, of the consolidating reform. In this, therefore, as in most other matters, we shall hear less and less of differences, and more and more of the essential likeness, of country and town schools; and it is of immense importance that the new rural school should be saved from imitating city schools in grading to a twelve-year standard for elementary and high-school courses combined.

All that is attempted in the prevailing twelve-year course can be better accomplished by the same teaching force in ten years. The twelve-year plan was foisted upon our American systems by would-be imitators of the German system, who did not understand it; because that system accomplished in nine years all that they tried to spread over twelve. The last two or three years of the usual eight years of elementary school, by common experience, present the most troublesome problems. It is more difficult to walk mincingly than to step out along the pathway. It is hard, also, to make an empty bag stand upright. It is chiefly here (and not in the high schools) that the boys take a disgust for study and an undue proportion of them leave school. And how can this be wondered at, if we face the fact that they are asked to spend eight years preparing to enter the lowest grade of the high school, and find themselves at fifteen or sixteen conning infantile manuals under female tutelage? There is not the slightest difficulty in "telescoping" an eight-year course into a six-year course. If you will adopt six years for the standard elementary grades, among other benefits too numerous to mention, you will begin to keep the boys for the high school. (In consolidating rural schools, talk about six-, not eight-, room houses.) The most discouraging experience of my own professional life has been the slowness with which protests against the eight-grade system have gained a hearing, even among students of its evil consequences. How will diminishing the college course by half help the boys who rightly spurn the stultification of the elementary schools? And if two years be saved at the stage where they are worse than wasted, what need for lopping off at the top? I hope for speedy results from the investigations of our new Society of Educational Research. No statistics could make the truth clearer to me than it has been for many years; but those researches will place the facts beyond the sphere of individual insight, and will, I hope, cause them to be recognized by all.

III. HIGHER STANDARDS IN THE EMPLOYMENT OF TEACHERS

To secure good teachers two things are necessary: right discrimination on the part of those who select the teachers, and money to pay them. Both are necessary, altho the best human service is too exalted a thing to be priced in the coin of the market; and if those who receive such service conceive that they "hire" it, they make a mistake whose tendency is to pollute the very wellsprings of noble action. Persons charged with the responsibility of licensing teachers for the rural schools, whether by examination or by normal-school certificates, can do much toward raising standards; but the most effective measures are those which will gradually preclude incompetent trustees. Districts that take no care for their schools must continue to drag along with short-term schools, housed in shanties, and often with incompetent teachers chosen and underpaid by incompetent trustees. Only where public opinion repudiates the notions of economy whereby the cheapest teacher is sought regardless of qualifications is the service of competent teachers deserved. But if leaders do their part, gradually a correct conception of the practical conditions of educational work will be formed in public opinion, until, after much consolidating of weak little schools, and the consequent election of suitable trustees to manage such larger affairs, the whole tendency will draw the backward districts into line with the general advance. By such means, it may at last be proved that we have dealt wisely with the paramount governmental problem of a free people. A proper conception of the immensity of the work will save from impatience and discouragement. Great things develop slowly. We must depend in part upon the youths who leave existing good schools. They will soon be electors and trustees, and will help bring to pass all needed reforms.

IV. EXPERT SUPERVISION

The supervision of rural schools devolves in the main upon the county superintendent, or some officer of similar functions. The conditions of the work vary greatly in different states. In the southern states problems of support and organization need expert solution. If the people and school trustees are allowed to sit in darkness, only small and incidental benefits can be secured by overseeing teachers as they struggle with impossible tasks. Where conditions demand it, it is the superintendent's paramount duty to direct public attention to the plain business propositions which the people must deal with properly, before teachers can accomplish by strictly professional means the vital results of education. The people of our rural regions in the South stand more ready to do their part than *un*expert supervisors of rural schools commonly report, if only the way be clearly shown to them. The first duty of supervisors is to explain to trustees and people the necessity of certain improvements and the means of obtaining them.

The support of schools nowhere in the United States depends upon the wealth of the state, but upon the local appreciation of public education. As a cold economic proposition, every state can afford good schools of every needed variety, and cannot afford poor schools. The man who claims that his district is too poor to maintain good public schools is not only mistaken as a matter of fact, but he also perpetuates his own and his neighbor's present poverty. A part of the amount contributed by any state for the Cuban and Philippine wars would have given that state public schools as well supported as any in the Union. Tell the people that they may estimate from their own experience with revenue stamps how difficult it would be to resume a part of that now happily abolished expenditure, in order to provide sanitary and refining schoolhouses and grounds, longer terms, the needed libraries and equipment, refreshed courses of study, and efficient teachers for the children for whose good in all other respects they labor with continual self-denial.

The method of supplementing state apportionment by local support is not only accordant with the fundamental principles and highest hopes of a true democracy, in its fostering of self-responsibility instead of entire dependence upon distributions by the state government, but it is the practical method thruout our common country. In the

United States at large 4 per cent. of the money expended on public common schools is derived from permanent funds, 16 per cent. from state taxation, leaving 80 per cent. supplied locally.

No details of technical supervision can be included in these condensed remarks; but I may say that uniformity is not a criterion of excellence, nor is systematizing an end in itself. In such regards there seems to be as much need for self-restraint as for exertion. Flat requirements in such matters as daily programs are generally ill-advised, and too minutely prescribed courses of study do more harm than good. Those who demand one rigidly prescribed course for all the schools of a county, or even of a state, are visionary admirers of uniformity for uniformity's sake, who do not concern themselves with existent facts. Let supervisors require and test results.

I trust the discussion which is to follow will bring out in some detail many things that I have been able only to refer to in general terms; and, in conclusion, I shall merely state that signs of educational progress are not confined to the advances observable in our own profession, but there are many evidences of such encouraging progress made by the people within the last two years in their share of our great undertaking as should inspire the teachers of this country to do their part still more nobly in the future than in the past.

CONSOLIDATION OF SCHOOLS

J. Y. JOYNER, SUPERINTENDENT OF PUBLIC INSTRUCTION OF NORTH CAROLINA

In discussions of this sort most benefit is derived from comparison of experience in dealing with similar problems.

I. FACTS SUGGESTING REASONS FOR CONSOLIDATION OF RURAL SCHOOLS IN NORTH CAROLINA

1. Large number of districts, small area of each district, and small number of children in each district: 5,370 white and 2,346 colored school districts; inhabitable area of state, 48,000 square miles; average size of white school district, 8.9 square miles; average number of white children per district, 84; average number in 1902, only 73; average number of colored children to district, 93; average number in 1902, only 82.

2. Rapid increase in number of districts until 1902: 47 per cent. of all white school districts and 44 per cent. of all colored school districts contained less than 65 children of school age—the minimum allowed by law except for sparsity of population or geographical barriers, such as streams, swamps, mountains, etc. In reports of all white teachers of two entire townships, in township meetings recently attended by the state superintendent in one of the most level counties of the state, practically free from geographical barriers, only one teacher reported a census school population of 65—the minimum fixed by law. In these townships there was a little one-room box of a schoolhouse for every mile or two of the public highway, notwithstanding the law which has for years forbidden building of a new schoolhouse within three miles of another.

3. Some natural results of this multiplicity of small districts and schools: From 1874 to 1902 the state and county school tax had been increased from 6¼ to 18 cents on $100 of property, the total school fund had been more than quadrupled, and yet a special state appropriation of $200,000 was necessary in 1901 and since, to give even a four-month school term in all public schools. During the quarter of a century before this appropriation was made the public-school term had been increased in length less than three weeks, and the average salary of the public-school teacher had been increased not one cent. Fifty-nine per cent. of all the districts needing aid from this special appropriation for this purpose were small districts containing less than 65 children of school age, many of them containing only from 20 to 30, and some not more than 10 or 15. The increase in the number of districts had more than kept pace with the increase in population, wealth, and

school fund, and the efficiency of schools had been increased but little. With a fixed school fund for each county, the larger the number of schools among which it must be divided, the smaller the amount of money each school will receive; the smaller the number of schools, the larger the amount of money each school will receive. More money for each school means more house, more equipment, more teacher, longer term. Further facts are unnecessary to prove the existence of too many little districts and schools in North Carolina, the folly of retaining them, and the wisdom of consolidating them.

II. OBSTACLES TO CONSOLIDATION

1. *Selfishness and politics.*—Most men naturally desire a schoolhouse as near their doors as possible, for the convenience of their own little family circles or for the employment of their own dear daughters, sisters, cousins, or aunts as teachers therein. They are naturally loath to give up their little schools for the greatest good to the greatest number, when once established because of convenience, profit, love of control, attachment to the old schoolhouse, and conservatism in clinging to the old rather than trying the new. Politics is often a cause of little districts and an obstacle to their removal. The cry of a schoolhouse at every man's door is not an unpopular one, and the demagog who is always ready to catch votes with any sort of a promise, without regard to the possibility or wisdom of keeping it, is ever ready upon occasion to raise the cry for temporary gain. The political sorehead is ever ready to flaunt in the face of the timid the scarecrow of ruin to the party, to procure or keep for his selfish ends his little district and his little school. Before the disfranchisement of the negro this was often used very effectively in counties in which the contest was close and no white votes could be safely lost.

2. *A large territory and a sparse population.*—It is almost impossible for states with a comparatively small territory, a dense population, a large school fund, and, only one system of schools to appreciate the difficulty of this problem of larger schools in a state with a large territory, a sparse population, a small school fund, and two separate systems of schools for two races. To illustrate: Average number of inhabitants in North Carolina to the square mile, 39; average number of white children of school age to the square mile, 9; average population to the square mile of north Atlantic division of states, 129.8; average of the state of Massachusetts, 348.9; area of Massachusetts, about one-seventh that of North Carolina; her school population, one and seven-tenths that of North Carolina; her school fund, eight times that of North Carolina; she supports one system, while North Carolina must support two in practically all her territory.

3. *Bad roads.*—To make the problem of consolidation in North Carolina, with her sparse population, large territory, small school fund, and double system of schools, still more difficult in many of the very districts where the population is sparsest and the need for consolidation greatest, the condition of the county roads is such, during the season when the schools are in session, as to render transportation of pupils impractical without greater expense than can be supplied out of a small school fund, and to stand in the way also of requiring children to walk far to get to a schoolhouse in a larger district. Without better roads and larger school funds, transportation of pupils in most rural districts of the South is hardly practicable. In any event, I believe that, at present, consolidation of districts cannot successfully be carried beyond the point of leaving a schoolhouse within reasonable walking distance of every child. In a mild climate any healthy child can walk over an ordinary road two or three miles to school without injury. Later, when improved roads and more favorable conditions make transportation practicable, these districts will probably become the nuclei of larger districts still and the feeders to the township high schools.

5. *Lack of county maps* showing townships, roads, streams, centers of population, etc., and the consequent lack of information in regard to size, boundaries, topography, distances, etc., of small districts and proposed consolidated districts. Such maps are an absolute necessity for consolidating intelligently.

III. WHAT WE HAVE DONE IN CONSOLIDATING RURAL DISTRICTS IN NORTH CAROLINA DURING THE PAST TWO YEARS

During the year ending June 30, 1902, there was a decrease of 179 in the rurul districts in North Carolina; from July 1, 1902, to June 30, 1903, the number of white school districts was reduced from 5,653 to 5,370—a decrease of 283 white districts during that school year; during the same year there was a decrease of 95 colored school districts, making a total decrease of 378. This represents a consolidation of at least 600 white and 200 colored districts in one year. In two years the total number of districts, white and colored, has been decreased 557, representing a consolidation of at least 1,200 small districts.

IV. HOW WE HAVE DONE IT

Our general method has been to convince, persuade, lead the people; not to force, or seem to force, them when it could be avoided. Radical action, in defiance of the wishes of a majority of the people concerned, always brings about harmful reaction. The objections to consolidation are natural and human, and should be met wisely, tactfully, and sympathetically with reason and argument and patience, not with abuse and dogmatism and impatience. The final movement for consolidation should come from a majority of the people most concerned, as a result of enlightened public sentiment on the question, and not from outsiders. The movement in each county must be led, if possible, by home folks; the natural leaders of this and all other educational movements in each county are the school officers, the county superintendent, the members of the county board of education, the school committeemen, the teachers. If these forces can be organized, informed, interested, set to work, and directed, the battle will be won.

In our state and district associations, county superintendents have discussed the question, committed themselves, individually and collectively, to the movement, and taken counsel together about ways and means of securing consolidation. Thru circular letters and conferences, county boards of education, committeemen, and teachers have been reached and interested by the county superintendent and the state superintendent. Thru bulletins on the subject from the office of the state superintendent, and such other literature upon the subject as could be obtained, thru the county newspapers, ever willing to aid in any good cause, the general public has been reached and informed, and public sentiment aroused. County superintendents have been urged to talk it privately and publicly in districts in which the conditions were favorable for successful consolidation, and to interest, if possible, a few influential citizens in such districts in the subject and set them talking it up. Thru blanks sent out for the purpose, each county superintendent has reported to the state superintendent and the campaign committee for the promotion of public education districts in which the conditions are favorable for consolidation, and some of the people are interested in it. During the summer, with the aid of the funds furnished by the Southern Education Board, a regular campaign for public education has been carried on under the direction of this committee, of which the governor, the director of the Southern Education Board for North Carolina, and the state superintendent are the executive committee.

At the favorable points in the various counties reported by county superintendents, appointments have been made for educational rallies and addresses by state superintendents, local speakers, and speakers sent by the executive committee. When the time was ripe, petitions asking for consolidation were generally circulated and signed by a majority of the patrons of the public schools in the districts concerned.

Frequently consolidation has been encouraged and secured by standing offers of the county board of education to aid liberally in erecting large and comfortable new houses centrally located, provided the people in small districts, with old uncomfortable houses, would agree to consolidation. The state board of education has encouraged and stimulated consolidation by giving preference to the applications of consolidated districts for loans from the loan fund for building and equipping schoolhouses.

V. HOW IT WORKS

I have time only for a mere mention of some of the beneficial results of consolidation:

1. Better teachers, better houses and equipment, longer terms, better classification.

2. Increase in enrolment and attendance. In many instances these have doubled the combined enrolment and attendance of the two or three little schools consolidated.

3. Increase in pride and enthusiasm of students, and in confidence and respect of patrons.

4. Stimulation of greater competition to greater effort by students and teachers.

5. Economy in house and fuel, in number of teachers, and in time and energy of teacher, thru concentration on fewer subjects and classes.

6. Best objective argument for consolidation, and best and surest silencer of honest opposition.

7. Increase in value and demand for property by inducing desirable immigration.

8. Preparation for local taxation and stimulus to this and to voluntary subscriptions for schools.

IMPROVEMENTS IN COURSE OF STUDY AND SYSTEM OF GRADING

DELOS FALL, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, LANSING, MICH.

It can scarcely be claimed for the present course of study for rural schools that it is the natural product of a steady and gradual evolution from its early form to the somewhat complicated condition in which it now exists. The fact is that that growth has been rather spasmodic and irregular. Forty years ago it consisted in the exaltation of the three R's to the exclusion of everything else; but gradually, by the persistence and energy of its advocate, the particular favorite study of some enthusiastic educator was somewhat reluctantly admitted. He in turn was followed by someone else equally ardent or some other study, which was likewise admitted; until we now have a course which is enriched, as the common tradition goes, but rather what some other more thoughtful would possibly characterize as congested, by the introduction of history, ancient and modern, and science in the form of nature study, physiology, civil government, literature, manual training, music, drawing, elementary algebra, geometry, and several others.

We have doubtless outgrown the idea that the aim of the school is to minister simply to the intellectual life of the child, filling his mind with facts and figures, laws and principles, all properly labeled and pigeon-holed in the mind, to be called out and utilized as the exigencies of life demand. Theoretically at least, we assent to the statement, so often made by educational leaders, that a course of study should have as its ultimate and sole aim the development and enrichment of the child's life-experience, and provide a means for the training of his powers of self-expression and achievement.

The rural school must be so improved as adequately and thoroly to prepare a boy for the new and taxing duties which will be required of him when he attains to his majority in the middle of the twentieth century. I think it must carry the pupil farther than the traditional seven or eight grades; for I cannot escape the conviction, which I have so repeatedly urged, that the minimum amount of schooling which will train a boy to take his part in the world is that represented by the present high-school course. If a high school training could be given to every boy and girl in the land, it would lift the general level of citizenship and push America to a position even more decidedly in the front than the commanding one we now occupy among the nations of the world.

It is a general principle, applicable to city and country alike, that the course of study should embrace subjects drawn from the environment, and should have constant reference to the everyday life, of the pupils. It therefore follows that the rural school course cannot

be like that of the city school; and the old saying that "what is good for the city is good for the country" is at once destroyed as being illogical and unpedagogical.

In several important respects the school must be more distinctly rural than it now is, so as to fit its pupils for a life upon the farm, to teach them to acquire an intelligent appreciation of the country, its beauties, its elevating and refining tendencies, and to adapt themselves to and enter into all its privileges. The course of study must be planned with this in view. It is not necessary that it should be made to conform to the curriculum of the city schools, for many studies which are perfectly adapted to the youth of the city have no appropriateness here. Nature study, agricultural science, a critical study of the soil, the sky, the forest, the field; botany, zoölogy, meteorology, manual training, and domestic science, will take place of Latin and Greek; ancient history will be replaced by United States history, special prominence being given to recent and current history; civics will be emphasized; the study of the human body will be continued, but with a greater reference to the maintenance of health and the production of a robust, strong, and virile manhood. I venture to say that athletics, systematized so that all shall get the benefit arising therefrom—rationalized and modified greatly from the present exaggerated form, which seeks to take nine or eleven young men, already abnormally developed, and make them still more abnormal—will continue to be pursued, and will properly supplement the physical exercise incident to farm-life.

In the improved course of study attention will be given to such studies of the country immediately surrounding the schoolhouse as will furnish a proper basis for the study of geography, and as will give material for oral and written descriptions to be used in language work. These will include a study of the general features of the landscape—the soil, the vegetation, the hills and valleys, the streams, springs, wells, and lakes, and their relation to the underlying rock, etc., etc. The great value of this method of procedure over that which places its main dependence upon the printed statements found in books will be that the pupil will be trained in the habit of obtaining his knowledge at first hand, as a result of his own observation, thereby developing an independence of observation, of making inferences from what he observes, and a power to think for himself, which no other method can produce. A marked result will be—and the human race has made a great gain when this result is reached—that the pupil will have learned to make direct reference of his knowledge to the actual conditions which prevail in country life; better still, he will be able to change those conditions and to determine what they shall be. He is no longer a creature of circumstances, bound to endure whatever the fates bring to him; but he rises superior to his surroundings in his power to control and mold them.

It is worth repeating that the township high school will not afford all the advantages of the city high school; but it is equally true that the rural high school will furnish many advantages which, in the very nature of the case, cannot well be afforded by the city school. At the best, the work of the city high school must be done, so far as the pupils are concerned, thru the medium of books. Most of their knowledge must be obtained by the method of authority from the printed page, and only in exceptional cases will they learn by an appeal to the real objects of knowledge, thus obtaining their knowledge at first hand. On the other hand, the student in the rural high school will go to the original source, to nature itself, for the facts of zoölogy, botany, mineralogy, meteorology, physics, chemistry, physical geography, and the like. By this method he will acquire the power to read and interpret facts at first hand, and he will insist upon carrying the same valuable method into lines of research. He will be given an independence of thought and a habit of reliance upon his own powers; he will be impressed by the largeness and freedom of the country; he will be freed from the artificiality and conventionality which more or less dominate life in the city and are quite characteristic of the city school; he will broaden in spirit and in aspiration by drinking in the free air of the country, by his contact with and study of the broad expanse of nature—the sky above him, the fields and forests; and the

country will continue in the future, as it has in the past, only in a more emphatic sense, to furnish the truly great men of our nation.

To speak more specifically of the actual working and conduct of the school, I suggest that it must exalt the two R's, reading and writing, into supreme importance, teaching them to the exclusion, if need be, of many of the subjects which are now crowded into the curriculum of the public school. In the last analysis of the method employed in obtaining what is called an education, it will be seen that one effort which must be made is supreme above all others. The pupil must mentally discern the object he is studying, whether it be a printed page in the text-book, a map or a chart, or an experiment in the laboratory. He must not only see the separate parts into which the problem is divided, but he must also see the relation which these parts sustain to each other, and finally see the parts forming one harmonious and complete whole.

By the same order of mind and by the same process, he will afterward see and interpret the facts of nature, discern the signs of the times, estimate the future of the wheat crop, or divine his political duty. In all this, and in the acquiring of all that which will finally develop the boy into a forceful citizen, there is used a process that has long been considered as important, but which has not been emphasized as it ought to be—a process called by the common term "reading." Too great a distinction is ordinarily made between reading and the process known as "study." To study does not require a different order of mind from that employed in reading. Study is only intensified reading, and a large proportion of the difficulties encountered by the child in his studies would vanish if he were taught to read properly.

In this connection it is urged that a much-needed change in our course in mathematics is to remove altogether all formal abstract number-work from the first four grades —all so called figuring and dealing with abstract problems. The number-work of these grades should be wholly concrete, and only that which grows incidentally and naturally out of the other subjects pursued. In the place of what was formerly done in arithmetic, there should be more language-work, consisting of conversations concerning objects which have been observed by the pupils. Reading should be so emphasized and taught that the child will have mastered the mechanics of reading by the time he has completed the third grade.

On the other hand, it may be affirmed that a proper definition of the process by which the knowledge obtained by reading and study is utilized is the one commonly known by the name of "writing." The expression of thought, by whatever method employed, is by a natural and logical expansion of the ordinary definition, only that of writing. These words with which I had hoped to impress you with my point of view were put together by a process which is narrowly and technically known as writing. I am now, as I speak to you, employing identically the same process, with the same end in view. At another time I might take the brush of the painter, the pencil of the artist, the facile touch of the musician, the skill of the architect, or the marvelous power of the artisan with his tools, as he accurately expresses his thought by the creation of his skill and invention. All this is writing. The acquirement of a thought is reading, the expression of the thought is writing; and I would have every pupil in our public schools thoroly grounded in these two arts. Give the boy these two powers, and he will educate himself.

The first great end, then, which is to be reached by any course of study is to fix habits of study by which the pupil may gather and interpret knowledge of the world in which he lives. The second end is to develop the power to express fluently and accurately the thoughts obtained by the first method. Both these lines of work may, with a proper expansion of the ordinary definition, be included under the term "language study;" and the problem of the course of study and the conduct of the school, for the first three grades, at least, may adequately be solved, first, by furnishing the objects of knowledge and stimulating the pupil consciously to use the accurate sense-perception which often lies dormant until aroused by a skillful teacher; secondly, by so inspiring the pupil as to cause

him to express himself freely and accurately, either by word of mouth, by drawing, by the aid of tools in manual training, or by some other form of expression.

For the rural schools the language-work should be based almost entirely upon observations which the pupils may make in what is known under the general name of "nature study." This observation should not be undertaken so much for the science to be discovered as, rather, to get proper material for language work. For this reason, the work in geography should return more to what may be called local geography, including the study of locations, distance, direction, boundaries, etc. The relation of physiography to everyday life should be emphasized, and the ordinary course in geography might well be enriched by paying more attention to commercial geography.

Geography and arithmetic can well be correlated by teaching many of the ordinary practical measurements, in fields, bins, haymows, and haystacks; estimates by weight of live stock, and estimates of lumber and wood in standing timber; cost of building fences, etc., simple forms of bookkeeping, such as keeping accounts with fields of grain, orchards, herds of stock, flocks of sheep, etc.

The rural school of the future will be a positive and forceful social center, growing out of an enlarged appreciation of those adjuncts which inevitably accompany a well-organized and advanced system of education. Literary societies, debating clubs, women's clubs, farmers' clubs, lectures, concerts, grange meetings—these, separately or all combined, will be recognized as consistent and logical factors of the public school. The good to be gained by this combination of educational appliances will be realized by old and young alike, and all will catch the enthusiasm for accurate knowledge and more of it, and will enter into one common campaign for education. Money will be invested in appliances for scientific demonstrations, in laboratory equipments, lecture-room apparatus, maps, charts, and libraries, all of which may be used in the interest of all classes, lecture courses, grange and club meetings.

It may be added that the *Michigan State Manual and Course of Study for Rural Schools* provides a course which follows the general outline given in this paper. It provides a course for ten grades.

HIGHER STANDARDS IN THE EMPLOYMENT OF TEACHERS

I

FRANCIS P. VENABLE, PRESIDENT OF THE UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL, NORTH CAROLINA

[AN ABSTRACT]

The efficiency of the rural or any school is practically determined by the qualifications of the teacher. All other matters are side issues and of secondary importance. The teacher is the key to the whole situation. The standards in the employment of teachers should be held as high as the supply of available teachers and the rate of remuneration will admit. There are many difficulties in the way of maintaining these standards. The qualifications are many and not easy to measure. Among them may be mentioned mental equipment, skill in dispensing knowledge, attractive personality, high character. No system of examination will give an absolute valuation of such qualities.

In some parts of the country the supply of available teachers is small, and the pay so little that it is difficult to secure any, even under very low standards. I maintain that it is idle to speak of raising the standard in their employment, unless larger salaries are offered. The rate of pay has improved in recent years, but not in proportion to the reward in other lines of employment. So many avenues of usefulness have opened up, so many ways in which a living may be earned, that the greater number of those who once

sought employment in this direction can no longer be induced to undertake the work. The more ambitious find the prospect uninviting, few remain long in the ranks, and fewer still can afford to fit themselves better for the work. The pay does not return the interest spent upon an education. For many of us in the South, then, the question is not one of raising the standards, but first of increasing the pay.

II

M. L. BRITTAIN, SUPERINTENDENT OF SCHOOLS, FULTON COUNTY, ATLANTA, GA.

1. With the first point argued as necessary by Superintendent Lefevre—namely, right discrimination on the part of those who select teachers—I agree most heartily, and in doing so I wish to say that to make this discrimination requires proper qualification on the part of superintendents and boards of education. If there is ignorance and incompetency here, the stream is poisoned at its source, and there is little hope for good teachers except by the merest accident. It seems only reasonable that there should be the same educational qualifications for county superintendents as for teachers. To the average mind it is ridiculous to expect proper selection of teachers and competent supervision of school-work where the superintendent cannot make the lowest average required of his teachers to obtain a license. Other qualifications are, of course, necessary, but it does seem only reasonable that, for this office or for a place on the board, men of education should be required.

2. *The petty school-board hindrance.*—There is a custom—with some legal sanction—in many states and counties that operates seriously against raising the standard of the teaching force in our schools. I refer to the practice of leaving the nomination, and in reality the selection, of teachers with certain members of the different county school communities designated as local trustees. At first glance it might seem reasonable and proper to commit the appointment to these patrons, but in practice it is the parent of serious ills to our educational work. From this custom it frequently results that support is thus provided, at the expense of the children, for some influential family's poor relation—"Cousin John," "Aunt Polly," or some other good soul who happens to be out of work.

When there is no local supplement and the dependence is entirely upon state funds, the selection of teachers is a duty and an obligation falling legally and properly upon the county board of education and the superintendent. If these are not competent to attend to it, other men should be found who are. It is no more sensible for the appointments to be made by the rural-school patrons of each individual school—farmers as a rule—than it would be for the grocers and machinists, for instance, who patronize one of the city schools to dictate in the matter of their children's teachers. Such presumption would be considered ridiculous on the part of any neighborhood of a city; yet it is not difficult to find a group of cross-roads citizens who still claim it as a right, and hundreds of poorly qualified teachers are "keeping school" under this arrangement and defrauding their pupils of an education. There is an instance in this state where a local board of trustees placed three different teachers—all failures—in charge of their school in one year by reason of a common desire to share in the spoils. In another instance a most embarrassing situation developed when one member had a son, another a daughter and a third a niece, all applying for the same position.

3. *Minimum requirements.*—In the report of the Committee of Fifteen the statement is made that the minimum standard for the teachers of our common schools should be a high-school diploma. This is a wise recommendation. Hardly anything can be more deadening than to take even the most proficient of the pupils who pass thru our common schools for teachers without further training. Not only is new blood needed, but the embarrassment to a teacher who is just ahead of her classes in scholarship effectually prevents good work. If we can get high-school graduates who have had normal-school

training, the work is much better; and where, in spite of short terms and poor pay, we can secure teachers with college as well as normal training, fortunate indeed is the situation. From this combination we should have the right to expect results of the highest order; from the fact that liberal scholarship is always more certain to succeed than the normal training which lacks this culture, and for the further reason that in this way the costly practice of raw scholarship upon young minds is eliminated.

4. *The real obstacle.*—The absolutely essential fact, then, which we must face in trying to attain to higher standards in the employment of teachers is the necessity for more money to secure their services after these trained teachers have received proper training. Human nature is much the same in all professions, and it is not to be expected that a teacher will be long content to labor in a five-month's school at a small salary after having spent much money and several years in preparing herself to teach. The boy on the farm should be given the same opportunities as his brother in the town, and to do this local taxation must come, in order that he may have at his command the same well-trained instructor. The very spirit of the age is in accord with this demand; for never before has mankind been so insistent, not merely upon the worker's finishing his task, but upon his completing it in a workmanlike manner. Gone forever is the time when the common people were satisfied with the clumsy tool or the ungainly garment. As the rude Attic speech of the early Greek flowered forth into the musical cadences of Homer's *Iliad*, so man, as the years go by, seeks more and more to make the work of his hand and mind, not merely fair, but beautiful and true in the sight of the unseen God.

EXPERT SUPERVISION

HON. ISAAC W. HILL, SUPERINTENDENT OF EDUCATION OF ALABAMA, MONTGOMERY, ALA.

The board of education is the primal cell from which has been evolved the American superintendent of schools. Boards, in the performance of their duties, met the practical problems of organization, classification, direction, and unification of schools, instruction of teachers in the best methods of teaching, arrangement of courses of study for both teachers and pupils, adoption of rules and regulations governing the conduct, the teaching, and the promotion of pupils. The solution of these problems required ability not found in the average man of affairs; and, hence, the school superintendent. From the character and nature of the duties to be performed, it seems to us perfectly clear that no one but an expert can do the work efficiently.

The distribution of labor which characterizes our higher civilization requires system and order. "Where the several portions of a complicated process are assigned to special hands, a general plan must bind together the related parts, and secure their harmonious and efficient action; and back of this plan there must be an intelligent guiding influence."

This "intelligent guiding influence" is recognized as the force requisite to success in every great enterprise in the business world. The man who would essay to direct and supervise any great business enterprise must possess, not only general, but specific, knowledge of the work to be performed. Such requirements are not made in the educational world. The idea too frequently obtains that it requires no special qualifications or training to supervise schools. Especially is this true of the rural schools. We often find men filling the office of county or district superintendent of schools possessing none of the special qualifications necessary for efficient supervision. To this, as much as to any one cause, may be attributed the deplorable condition of many rural schools. Experience has demonstrated, in my own state as elsewhere, that where the "mighty engine of supervision" has been wielded by competent men—men possessing scholarship, men with successful experience in teaching, men of true moral worth, men possessing tact and common-sense—

the educational interests are in a flourishing condition. The superintendent of schools must possess scholarship; otherwise he cannot arrange courses of study for both teachers and pupils, nor examine schools to ascertain whether the outlined work is being performed. The superintendent should be an experienced teacher, in order that he may criticise, instruct, and direct the teachers under his supervision. The superintendent should possess true moral worth, in order that he may give to his teachers and schools a healthy moral tone. The superintendent must possess enthusiasm and untiring energy; otherwise he will not impress upon others the importance of the work he seeks to accomplish. He must possess tact and common-sense; if he do not, much of his labor, tho properly done, will count for naught, so long as human nature retains its imperfections.

The man possessing the qualifications necessary for efficient service as a superintendent of schools is too frequently forced into other professions or vocations of life by the miserable compensation offered for such services. The superintendent should not make money the prime object of his labors, but "the laborer is worthy of his hire." In Alabama the office of county superintendent, with a few exceptions, has simply been an office for the disbursement of the per-capita school appropriation made by the state. A recent act of the legislature, however, has changed all this, and, beginning with the new school year in October, the county superintendent will be superintendent of schools under a county board of education. We hope so to improve conditions by the time the legislature meets in 1907 that the office will be so dignified that the importance of competent men to fill the position will be appreciated by our legislators. The salaries of the office vary by counties, and range from two hundred and eighty to two thousand dollars per annum, the average being between five and six hundred dollars. The office is elective by the people in sixty-two out of sixty-seven counties in the state. I am glad to be able to report here that, without the assistance of any law requiring qualifications for superintendents, the good people of Alabama have begun to recognize the importance of the office; and whenever and wherever an aggressive campaign has been waged by a practical schoolman for the place, his efforts have proved successful.

Alabama reports progress all along the line. The principle of local taxation for school purposes is recognized in our new constitution for the first time in our history. We are building better schoolhouses; we have made provision for qualified teachers; and we turn with hope to the future for expert supervision.

CITY SUPERINTENDENTS

THE EXPEDIENCY OF IMPORTING TEACHERS OF APPROVED MERIT FROM WITHOUT A TOWN OR CITY

SAMUEL T. DUTTON, PROFESSOR OF SCHOOL ADMINISTRATION, TEACHERS COLLEGE
COLUMBIA UNIVERSITY, NEW YORK CITY

Before we can well settle the question of expediency in any particular case of this kind, we must consider what the custom has been in the community, and what weight should be given to public sentiment. I have yet to meet the superintendent or the principal who would not wish upon occasion to go outside the town or city, and find that superior teacher who could bring to the work newness of life and high professional ability. But in many cases my educational friends would deem it inexpedient to do so, because of local conditions. While a school officer should always act the part of leader, and should be courageous in doing what is best for the schools and the children under his charge, he may well hesitate before doing anything that is likely to arouse a sentiment of personal hostility, and so impair his influence and usefulness.

Being anxious to know just what the traditions and practice in different parts of the country are, I wrote to a considerable number of state and city superintendents asking what the custom is, and to what extent the community is agreeable to the importation of teachers. The returns show a more favorable condition of affairs than I had expected to find. It would appear that in the education of the popular mind which has been going on in recent years, a more friendly sentiment toward this matter has been developed. The officers whom I addressed all appeared to favor an occasional importation of outside teachers, and are doubtless throwing their influence in this direction. This fact partially explains the improvement to which reference has been made. It is surprising however, to find how the tradition and sentiment of one state differ from those of another. For example, the superintendent of education in Vermont writes that "there is perfect freedom in importing teachers from abroad. The school officers are as free in making contracts with teachers in law and under public opinion as they are in making any other contracts." On the other hand, the superintendents of New Hampshire and Maine said that the feeling is decidedly in favor of home talent; altho in the latter state teachers of recognized ability are sometimes brought into the larger cities and villages. There are several states—as, for instance, Connecticut, Illinois, and Kansas—where it would appear that the principle of free trade in teachers has made considerable progress. I gather from what the superintendent of Minnesota writes me that a very large part of the teachers in that state have been imported, many coming from other states, and that there is no serious criticism of this practice.

Letters received from city and town superintendents show similar conditions. In a very few cases, as in Medford, Mass., appointments are made from without. The opposition to this course is not serious. A majority of the superintendents say, in substance, that they do occasionally import teachers from without, but if they were to carry the practice to any considerable extent, they would expect serious opposition.

Reading somewhat between the lines, I gather from this correspondence that wherever school boards have asserted their right to do what is best for the schools, they have been able, partially at least, to educate the community to their position. It would also appear that in the country at large there has been a manifest growth in breadth and tolerance toward this, as well as other attempted reforms in school administration. It should be said, in passing, that in the larger cities, where an eligible list is formed upon examination, as a rule outside candidates have the opportunity of competing for places on this list. This is true in New York city; and the newspapers in that city frequently publish communications attacking the practice, and revealing considerable hostility to the open door. Very recently a bill has been introduced at Albany which provides that, in order to be eligible for an appointment as principal in any public school, a teacher must have had four years' experience in the public schools of the city, and in order to be an assistant principal three years'. The senator who introduced this bill declared it his intention to prevent the superintendent from going to other states for his principals. This is only one of many instances where a politician, caring nothing for the schools and the benefits which come from broad and business-like methods of administration, endeavors to curry favor with the people by acting as their champion.

The question now arises why it is that almost every intelligent school officer appreciates the value of the occasional outside teacher. It may not be easy to state the reasons why. It is one of many instances where the advantages of the teacher possessing qualifications which especially fit her for a difficult position transcend the power of language. Teaching is to a large extent ethical and spiritual in its essence. Its products cannot be accurately estimated or measured; neither can its methods be fully formulated. The working of one personality upon another is mysterious, and the process is difficult to describe. Indeed, it is often difficult to say why one teacher is better than another. We feel sure that it is so, but it is only by careful observation, continued for a considerable length of time, that we are able to state, with any degree of fairness or accuracy, the reasons for our conviction.

Many of you will think of actual instances in your own experience where a new and fresh personality has given such an impulse to the working force in a school as to attract the attention of the whole community. I should like to state one or two instances in my own knowledge. In a certain city, several years ago, there was a condition of things not unlike what could be found in a number of larger communities. The mechanical features of the graded system had in the space of fifteen years been worked out to perfection. The marking, reporting, and bookkeeping would have done credit to any business house where fullness of detail was required. In many of the grammar schools, as well as in the high school, pupils were seated by rank, and weekly diaries were sent to the homes giving the marks of the pupils in every study for every period. In the high school a printed list of all the pupils in the four classes arranged according to rank with the marks of each pupil for the month, and a supplementary list of those who had fallen below the required standard, were sent to every parent. The use of the high-school library, which was an exceptionally good one, there being no public library in the city, was granted to those students only who attained a certain rank, which, I believe, was 70 per cent. About one-third of the pupils were thus deprived of the use of the library. I believe no teacher had been imported for at least ten years. Two or three principals had been brought in, and it is the experience of one of these, who took charge of a large grammar school, to which I particularly refer. Whatever was excellent in the system under which the schools were organized and supervised was, of course, to be seen in that school. The utmost uniformity prevailed in respect to every phase of the school-life. One class-room was very much like another; the curriculum was narrow, and the methods of teaching were formal, so that the atmosphere of the school was somewhat tame and monotonous. There was little initiative and enthusiasm, altho the teachers were earnest and did honestly what the regulations required. The school building in its surroundings and appearance was as depressing as were many of the events which took place there. The chief function of the janitor seemed to be to stir up the dust which had been accumulated for many years It was evident to the new principal that something new was needed to make the school what it should be, and as he had come from a city where he had seen the advantages of freedom of action, he naturally felt that a new teacher would help to redeem this school. When after a few months a vacancy occurred in one of the higher grades, he immediately called, first upon the superintendent, and then upon the chairman of the school board, and got them both to consent to his going out and finding such a teacher as he wanted. Without giving them a moment to repent their action, or the opportunity of consulting together, he took the first train and went to another state to negotiate with a teacher whom he had already known and had seen at work. I cannot describe in detail what happened after the new teacher was installed; but that a number of things did happen is certain. The newcomer was somewhat commanding in appearance, was entirely self-possessed, and wore somewhat better clothes than had usually been worn in that school. She was a brilliant teacher of gymnastics, as well as of reading, and used fresh and cheerful methods in all her work. While at first there was some jealousy and gossip on the part of the other teachers, they were soon glad to visit the new teacher and see her work. Her class, which had been a discouraging one, began to be proud of itself. The personal appearance of the children became better, and on certain public days, when they gave class exercises before the whole school, quite a profound impression was made. A new and better spirit began to manifest itself. Even the old janitor began to wield his broom more effectually, and appeared during school hours in a more decent suit of clothes, wearing a clean collar. Without going further into detail, it is enough to say that in the course of one year quite a remarkable change took place, not only in the superficial appearance of the school, but also in the general tone and quality of the school-work. And I believe the influence and example of the new teacher had more to do with this change than all other causes combined. The result was recognized by principals of other schools in the city, and they soon wanted outside teachers, and succeeded in getting them. It is more than twenty-five years since this event occurred,

and the frequent importation of new teachers has contributed largely to the change which has taken place in that school system.

Let me state another instance, which occurred in the same city a few years later. The superintendent persuaded the board to erect a new building for a training school, where the graduates of the city high school could receive some instruction in the theory of education, as well as practice in teaching under skilled supervision. He imported three young women, graduates of normal schools of high standing, with several years of successful experience. One of them was made principal, and the other two were made her assistants. This proved to be a case where the importation of teachers of approved merit affected, not merely one school, but an entire school system. Each year from twenty-five to thirty young women who had received what the training school was able to impart in the way of skill and enthusiasm were sent out into the schools of the city, carrying with them a new spirit and the newer methods, which in those days were quite in contrast to the old. I feel safe in saying that the school system was renovated and uplifted thru the indirect efforts of those imported teachers in the training school. Red-tape and formalism had to make way for things that were vital and fruitful.

When the late Dr. Sheldon began his great work at Oswego, he imported a trained teacher from England, who in his estimation played a very important part in the remarkable record made by that normal school. It is true also of many of our colleges and universities that their caliber and effectiveness have been greatly increased by going out into the world's market and finding men of rare scholarship and teaching ability. In the same way, in the fields of architecture, engineering, music, and art, America has made rapid strides largely because she has extended a hand of welcome to master-spirits who are willing to come and make their home with us. The principle of inbreeding cannot be followed to any extent without the danger of decadence and inferiority.

Looking at the side of the teacher, it is true that a prophet is not without honor save in his own country, and a person who can begin his professional work away from his own home and acquaintances has some marked advantages. He stands for a little more. There are no prejudices to weigh him down, if he is truly successful. His preferment comes the more quickly, his professional career is richer, and his rewards greater, than if he had remained at home. I believe this to be especially true of men. The personal advantage to young women of going among strangers to teach depends upon their own force of character and the people among whom they are placed. This, however, opens a field which my theme does not bid me enter. Let me rather summarize some of the practical arguments in favor of the importation of teachers, then some considerations in favor of home talent, and finally such conclusions as can be drawn on the question of expediency.

In behalf of the imported teacher it may be said, first: He is likely to be selected for his good qualities and the promise he gives, rather than because of local influence, or the fact that he is eligible and must be provided for. Second: He enters upon his work with a presumption of ability and character which is not always accorded a person who has grown up in the community. He is more likely to be taken at his face value than the one who has come up thru the local schools, and gained his position thru the ordinary routine of examination and appointment. Third: Working in a new field, it is easier to cultivate singleness of purpose, and to shun those obligations of a social and churchly nature which it is so easy for a teacher to incur to excess. It is to his advantage that he can choose the circles in which he moves, and to a good extent select his intimate friends. Fourth: It is easier for a body of teachers to recognize and emulate the excellencies of a stranger than those of one of their own circle. Finally: No slight advantage lies in the fact that if the imported teacher is unsuccessful and has to surrender his position, it becomes easier for him and the school board than if he were an old inhabitant.

On the other hand, I believe it better that the great body of teachers in a community should be residents thereof. Under the right conditions, and with a vigorous administration, home teachers may be a powerful influence in shaping public sentiment. An appeal

can be made to them on the ground of local pride, and they may become in the best sense a stable and conservative element. In times of reaction and excitement, scattered, as they are, thruout the homes of the city, and being in touch with a large number of people, they become a sort of balance-wheel in steadying popular opinion.

With these things in mind, it is quite safe to conclude that, while a large majority of a corps of teachers may well be residents, it should always be possible to go out and find the exceptional teacher. It is expedient to do this, even if a yellow press voices the protest of the selfish and unintelligent. There is no better way of educating the public to a broad and wholesome view of this matter than by importing now and then such teachers as will justify the action by their superior work. I am not saying that a superintendent should ignore public sentiment in this or any other matter, or do those things which tend to make his position untenable; but the moral questions involved are of such moment that I believe the best people in any community can be brought to view with favor a method which is sure to redound to the welfare of their children's schools. Whenever it seems expedient to a superintendent to import a teacher, he should, if necessary, argue the matter with the school board and the public, on the broadest grounds of educational policy, and of duty to the children whose interests are involved. He should continue to do this until right-minded people are won over to his position. Then duty, expediency, and opportunity are all favorable, and he can act, feeling confident that the end will justify the means.

SHOULD TEACHERS BE REQUIRED TO PRESENT FROM TIME TO TIME EVIDENCES OF INCREASED SCHOLARSHIP? IF SO, OF WHAT NATURE — EXAMINATIONS, CERTIFICATES, OR CREDITS FROM RECOGNIZED INSTITUTIONS OF LEARNING?

WALTER H. SMALL, SUPERINTENDENT OF SCHOOLS, PROVIDENCE, R. I.

To what end? The teacher's stock in trade is scholarship, personal presence, moral character. It is necessary and desirable that the incremental part of the stock in trade should be increased as far as may be, but personality with low scholarship is more potent than high scholarship without personality.

Arnold's estimate of a teacher is contained in this:

> I want a man who is a Christian. I do not so much care about scholarship—and yet, on second thought, I do very much care for it, because I think even the elements are best taught by one who has a thorough knowledge of the matter. However, if one must give way, I prefer activity of mind and interest in his work to high scholarship; for the one may be acquired far more easily than the other.

The same thought was in the mind of that superintendent who said that in the selection of teachers he required, first, high moral character; second, fine manners; third, good scholarship; and last, professional training.

The ideal teacher contains all these elements; the real teacher with whom our lot is cast, not quite all, and the element most frequently lacking is mature scholarship. But if the end in view is a mere emphasis of scholarship, if we are to hold that the first element in a teacher's work is the cultivation of the intellectual side above all else, I should argue against the increased scholarship and for the injection of good red blood into his veins, to the end that he might become a *man* and not a pedant.

There is danger in the term "scholarship," unless it is properly interpreted. It includes more than mere book knowledge. There is in schools today too much green scholarship. As Holmes puts it: "Knowledge and timber shouldn't be much used till they are seasoned." Book and paper reading, attending lectures, spasmodic study, a little of this and less of that, is not scholarship; there should be something of many things, but there should also be sufficient of one thing to be an effective power.

If the end in view is to broaden the mental horizon of the manly man and womanly woman, for the enrichment of their own lives and that they may exert a broader influence on those whom they instruct, there is no argument; we are all agreed. Such teachers do grow, as much as circumstances will allow.

Scholastic growth depends on three things: mood, motive, means.

Providence furnishes in its normal school, its Rhode Island School of Design, and its Brown University peculiarly favorable circumstances to show if present-day teachers possess the mood. A questionnaire was sent to the 700 teachers, with a note asking them to answer frankly and freely if during their service as regular teachers they had studied at any of the above-mentioned institutions, with private instructors, or had increased their scholarship by any other means; what studies they had taken; for how long a time; if the work had been done evenings, Saturdays, vacations, or on leave of absence; and if they had received any degrees or certificates for their work. Over 600 replied. Of the 15 grammar masters, 9 have done systematic work at the university; some of them have earned their A.M.'s and Ph.D.'s. The general feeling of these men is that study is necessary for their own life and growth. As one put it, he "wanted the tonic that comes from outside work." Of the 33 high-school men, 23 have taken distinct courses at Brown or other colleges, and several have studied abroad. Of the 45 high-school women, 31 have done similar work at Brown or elsewhere. Eight men have received A.M.'s or Ph.D.'s, and 17 women have received A.M.'s. These degrees have been given for work accomplished; they are not honorary. Many certificates have been received from Harvard, Clark, and the University of Chicago for summer work. Much work has been done privately with Brown professors. In every case there is evidence of quiet, persistent, continuous study. Growth from mood is everywhere evident, the desire to better the scholastic side of their working capital. Of the 45 kindergartners, 40 have pursued studies, some along the line of their work, while others have taken broad-culture work at Brown. Of the 464 grade teachers, 151 have not studied, 313 have. Of these, about one-third have taken courses at Brown, one-third have studied privately, and one-third have studied at summer schools or the School of Design, or have taken literature and modern-language courses in the Evening High School. This work has been done almost entirely evenings, Saturdays, or during vacations. Seldom has leave of absence been asked for, except by the high-school teachers who desired a year abroad. While about two-thirds of both the high-school and grade teachers have studied, the high-school teachers have taken longer and broader courses. Their initial velocity is greater in that they are college graduates, while the grade teachers are normal graduates. The former have the larger salary, and a day so arranged that extensive work is easier. The grade teachers are handicapped by the smaller salary and by the fact that possible financial rewards will not be so great.

Yet it is surprising to what an extent mood has carried these teachers in their studies. Some have pursued systematic work for ten, fifteen, or twenty years, and they are still working. I apprehend that this mood is not copyrighted by Providence teachers, but that it is common among the great body of teachers all over the country. It is evidenced by the great attendance upon summer schools, some of which add to scholarship and some do not, by the attempts at child study which is not a study of children, and by the attendance on lecture courses of broad culture like the Twentieth Century Courses in Boston. What is lacking is the motive and the means. Teaching is not a permanent occupation to many who enter its ranks. To the men it is a stepping-stone to something else; to the women it is a way station on the road to matrimony or some other misfortune. Teaching does not offer rewards for continuous study and growth. On the average, it furnishes a scanty livelihood. The doctor keeps up with new remedies and operations, and frequently discontinues practice for a period at the best American or foreign schools and hospitals. The lawyer absorbs decisions on new points of law. To each is the reward of renown and big fees. The minister grasps the new interpretations; to him appears the vision of

the New Jerusalem—the city church with its influence and its salary. But to the average city teacher, what? Except in a few rare instances, only the $600, $700, or $800 which comes to her after four or five years of work; and in most cities this comes not because of added worth so much as merely added years of service. Until cities furnish motive in the way of substantial rewards in position and salary, so that there may be means for study, we have no right to require additional scholarship from the teacher who had sufficient in the beginning to enter upon the work. Even under the best conditions I would not *require*. Scholarship is desirable both along professional and academic lines, but it should come thru encouragement of the mood inherent in most teachers, rather than thru any mandatory methods. Additional scholarship is desired only in those who have shown that they know how to use that which they already possess. Scholarship for mere scholarship's sake is no criterion, but scholarship practically applied in the schoolroom is greatly needed. Furnish the motive and the means, and scholarship will result. Teachers have a right to look for sufficient increase in pay to meet at least a part of the expense of this additional study. The same motive should be furnished teachers that is furnished every other toiler in public or private business—increased power, increased position, increased pay—when it is shown that by scholarship, measured by schoolroom results, this increase has been earned. "By their fruits shall ye know them."

Scholarship which grows out of the mood of the teacher should be encouraged to the utmost. We should bless it; we should reward it with the highest material gift in our possession; in our every possible act we should manifest our appreciation of the spirit shown, that it may say unto all others, "Go thou and do likewise." But to *require* it without supplying the motive is unfair and dangerous. It is unfair to expect the six-hundred or seven-hundred-dollar teacher who must support herself and a dependent mother, who must aid a sister thru the normal school or a brother thru college, to have the strength and the means for additional study, even when she has the inclination; it is dangerous in that we can require just so far as we can pay for the requirement, and no farther. The abler minds that can do better financially in other fields for the same or less requirement will leave us, and the present standard of personality and culture will be lessened. It is not a matter of sentiment or of what we should like. It is purely a business proposition, a matter of dollars and cents. There should be no advance promises, but there should be the fair surety that, as in business, preparation for advancement will in time be rewarded. Such is not the general condition now, but teachers are advanced in too many places on years of experience rather than on any other consideration.

To what extent do cities offer any motive to teachers to increase their scholarship? The following enquiries were sent to fifty-five leading cities:

1. In the appointment of teachers in your city, what preparation in scholarship is required?
2. Must applicants pass preliminary examinations?
3. During service, are additional examinations required?
4. If so, along what lines and for what purpose?
5. Are credits given teachers for study at educational institutions during the year, on Saturdays or during vacations?
6. Is such study required? Is it encouraged?
7. Are teachers granted leave of absence for study?
8. If so, under what conditions?
9. What reward in the way of advancement in position or salary does your city offer teachers to continue study?

Replies were received from forty-five. The initial preparation in most of them is high school and training school, high school and normal, high school and experience. The majority require normal training. About one-half require preliminary examinations. None require additional examinations during service, except that in those cities where there are different grades of certificates examinations are required in passing to the higher grades. No special credits are given for increased scholarship, but all recognize it indirectly. Study is not required, but it is encouraged in all cities, except one. Leave of

absence is frequently granted on request, the general condition being loss of pay, tho not loss of position. Cambridge, Mass., has a regulation as follows:

> Any teacher who has served in the city for ten years may, on recommendation of the superintendent and vote of the board, have leave of absence for one year for purposes of study or travel, and may receive one-third of his salary, provided the amount in no case shall exceed five hundred dollars.

This rule was adopted in 1896, and in six years fourteen teachers applied for such leave of absence. In Chicago for the past year and a half the superintendent has had the authority

> to grant leaves of absence for the period of one year to successful teachers, who wish to continue their studies in colleges, universities, and higher institutions of learning.

He imposes the following conditions:

> Teachers who make application for leave of absence under the above rule must make a written statement of the lines of study they intend to pursue, and at what institutions of higher learning. When they return at the expiration of their leave of absence, they must present official statements of the time spent and work done at higher institutions of learning during the period of their absence, as evidence that they have complied with the conditions of their leave.

Incentives are offered in the form of advancement, in position and salary, based on schoolroom efficiency and this increased scholarship. Other cities, so far as heard from, seem to offer no tangible incentive, tho all favor the scholar, other things being equal.

The point of view of the teacher in this connection is interesting and instructive. Besides the questions already noted as having been asked the Providence teachers, these also were asked:

> Has your position in the schools been advanced since this study? Has your salary been advanced? Do you consider such advance in position or salary due to your increased scholarship?

The answers can be summarized in the reply of one teacher: "Not directly; yet advance could not have been secured without growth." Perhaps a dozen believe their advance is due directly to this element, but many more feel their scholastic growth has received no recognition or reward. Only five men think their advance is due even indirectly to their increased scholarship; fifteen women think their advance is due, not to the scholarship *per se*, but to the added power which the increased scholarship gave plus the power which came from added years of experience in the schoolroom.

The replies to the question, "What returns should teachers expect from this increased scholarship?" reveal much. It shows the prevalent mood for study, and the feeling that growth should receive material rewards. In the opinion of the men, there should be greater efficiency, self-satisfaction, increased pay. I quote three replies:

> "None, unless the increased scholarship shows itself in teaching."
>
> "None, except as their services prove more valuable."
>
> "Other things being equal, principals and superintendents should regard it as a recommendation for promotion."

I quote the following from the women:

> "Personal satisfaction in better command of their subject is the most evident return."
>
> "Increased salary in proportion to increased proficiency in school-work."
>
> "The assurance of ability to enter upon more advanced positions, if such are offered."
>
> "A broader grasp of their subjects and a greater facility in imparting their knowledge, and hence a bigger market value for their work."
>
> "Increased culture, greater efficiency, broadening influence, more joy in living."
>
> "Increase in salary, providing it is accompanied by an equal increase in teaching and disciplinary ability."
>
> "Thru their attitude as learners, greater sympathy with pupils."
>
> "Increased efficiency thru greater familiarity with subjects they teach."
>
> "Broader culture and more liberal ideas thru study of subjects they do not teach."
>
> "The stimulus that comes from contact with greater minds than their own."

To revert to the original question: Should teachers be *required* to present evidences of increased scholarship? I answer, no. The mood for increased scholarship is inherent in the good teacher. Increased scholarship in the poor teacher is merely increased evil. Hence there is no need of requirement. What is needed is incentive or motive

furnished by the city in the way of advancement in position and salary, that the mood may be nurtured. There should be a gradation of salaries based on something besides "first year, second year, third year," and there should be special salaries which may be given as a recognition of special scholarship and special ability, on recommendation of principal and superintendent. Degrees or credits from recognized institutions should be proof of the scholarship; the opinion of the principal and superintendent should decide the ability. This is the end toward which we should labor, that out of it may result natural growth in maturer scholarship, its better application in the schoolroom, and hence the elevation of the school system.

DISCUSSION

Superintendent J. H. Van Sickle, Baltimore, Md.—The plan in use in Baltimore is not put forward as ideal under all conditions. We do not have unlimited funds at our disposal, as in New York, nor do we have $10,000 for normal-school extension, as in Chicago. What we do must be done with small means. We hold that to advance salaries without discrimination as to the quality of service rendered is merely to increase the burdens of the taxpayers without adequate return. In deciding upon a plan, our problem was to make a limited sum serve to set a salary standard that would appeal to all elementary teachers as worth working for, and to fix conditions that could be met by them without undue strain in view of the very moderate increase then available, $96 a year for one hundred teachers (now two hundred and fifty teachers). We prefer to give $96 per year increase to each of two hundred and fifty teachers, rather than to give one-half that sum to each of five hundred teachers, or one-fourth as much to each of one thousand teachers.

Any plan that discriminates is bound to meet with more or less opposition in its inception; but time makes the adopted plan customary, opposition dies down, and professional activity is doubled among all teachers who have a future before them.

The rules of the board under which the promotions in question were made provide that those nominated for promotion must have taught in the public schools of Baltimore at least five consecutive years; that the nominations must be based upon efficiency and an examination in some one subject selected by the teacher from a list of subjects approved by the superintendent; and that continuance on the promoted list shall depend upon continued efficiency.

In Baltimore each of twenty-four principals has under his supervision from fifty to eighty teachers. Each principal was asked to send in the names of a few (not exceeding ten) of the best teachers in his schools, without regard to the grade taught, arranging the names in the order of merit. There were already on file in the superintendent's office two previous annual estimates of efficiency and a personal statement from each teacher giving facts as to education, training, experience, date of appointment, and special courses of study pursued since appointment. These personal reports were carefully examined, the principals' lists were compared with reports already on file, and changes in rating, where any had been made, were carefully inquired into.

Nearly two hundred names were handed in. An entire month was spent by superintendent and assistants in reviving impressions of the schoolroom work of each of these teachers by visits to the schoolrooms. At the close of the inspection one hundred names were agreed upon, and invitations were issued to the one hundred teachers to meet the final conditions set by the board. Seven invitations were declined. Seven additional invitations were thereupon issued and accepted. From the first, applications were discouraged. It is now fully understood that the initiative in matters of promotion is to be taken by the supervisory officers. The examination took the form of an oral defense of a

dissertation or thesis written by the teacher at her leisure (the summer vacation), on a topic chosen by her from the following list:

1. Froebel's Laws Applied to Primary Work.
2. Educational Value of Plays and Games.
3. Individuality in Class Management.
4. Flexible Grouping.
5. A Discussion of Herbert Spencer's Educational Theories. (Any other great name may be substituted, as Herbart, Rousseau, Pestalozzi, Comenius.)
6. My Method of Teaching....., together with the Educational Principles upon Which My Method is Based.(The blank may be filled with any school subject in which the teacher is specially interested.)
7. Conditions Favorable to the Development of the Child.
8. The Scope and Purpose of Authority. In school, is it limited, as Bosanquet holds for the state, to "Hindering Hinderances to the Best Life"?
9. Essential Differences in Ideas of Old and New Educational Régimes.
10. Conditions in Modern Life an Index of Requirements in the School.
11. Reciprocal Relations of Formal and Culture Studies.
12. Psychological Value of the Arts as Material for Study.
13. Development of Social Sense in School-Life.
14. Humanistic Values and Technical Values in Nature Study.
15. The Basis and Purpose of Correlation.
16. Psychological Value of Hand-Work.

In the preparation of papers, teachers were purposely left free to consult and to quote authorities, giving proper credit in marginal notes, with page references, to all authorities cited. Originality in the absolute sense was not so much expected as grasp of the subject and reasonable constructive power. We did not want any attempt at "fine writing," but we did want evidence of the possession of ideas, and the ability to express those ideas in clear and concise English. The oral examination consisted in a defense of all statements made, and, when desired, an explanation of all references and quotations.

Previous to the oral examination, each paper was read by each of the three members of the examining board, notes being made as a basis for questioning. Each teacher spent from thirty to forty minutes with the examining board. We thus came to know the teacher behind the paper—a matter increasingly difficult for the superintendent in large systems of schools, but of great practical importance. The knowledge thus gained has already served as a guide in promotions to positions calling for personal qualities that might not have been discovered in any other way.

It is not an easy thing to determine the relative efficiency of teachers; yet, when considerations such as those indicated above are carefully observed, the result cannot be far from correct. Enemies of civil-service reform allege that examinations do not examine; and its best friends readily admit that there are many important elements of which the ordinary written examination fails to take account. By our plan of promotion we have an additional test of merit which is free from some of the imperfections of the ordinary examination, and, therefore, more conclusive.

Undoubtedly there are some in the service who think their merit superior to a number of those who were invited to prepare papers. But as these critics have not had an opportunity, as have the supervising officers, to see the schoolroom work of the teachers in question, their opinions gain little support. Our plan has brought forward teachers who, in their modesty, would have been the last to claim any special merit for themselves. It has enabled us to hold up ideals in such a way as to make these ideals immensely influential in improving instruction.

Two hundred and fifty teachers in all have now been promoted in this way. I believe there has been less dissatisfaction with a plan which limits invitations to the number for whom the increased salaries are available, than there would have been with a plan which would admit to competition a larger number, many of whom would necessarily have to be rejected.

There is a great professional activity, not only among these two hundred and fifty teachers, but among twice as many more. The advance in salary has been within the reach of teachers of all grades. A glance at the list of topics will show that a primary teacher could meet the conditions imposed without diverting her attention from the work she was actually doing.

It must be remembered that an excellent paper is not the first consideration. Excellent schoolroom work has been considered the prime requisite in all these nominations. Many teachers whose schoolroom work is ordinary, or even below mediocrity, are able to prepare good papers; their theory outruns their practice. It is better for any school system that such teachers wait for promotion till their practice overtakes their theory.

NATIONAL COUNCIL OF EDUCATION

CONSTITUTION

PREAMBLE

The National Council of Education shall have for its object the consideration and discussion of educational questions of general interest and public importance, and the presentation, thru printed reports, of the substance of the discussions and the conclusions formulated. It shall be its object to reach and disseminate correct thinking on educational questions; and, for this purpose, it shall be the aim of the Council, in conducting its discussions, to define and state with accuracy the different views and theories on the subject under consideration, and, secondly, to discover and represent fairly the grounds and reasons for each theory or view, so far as to show, as completely as possible, the genesis of opinion on the subject. It shall be the duty of the Council, in pursuance of this object, to encourage from all its members the most careful statement of differences in opinion, together with the completest statement of grounds for the same. It shall further require the careful preservation and presentation of the individual differences of opinion, whenever grounds have been furnished for the same by members of the Council. It shall invite the freest discussion and embody the new suggestions developed by such discussions. Any member making such suggestion or objection may put in writing his view, and the grounds therefor, and furnish the same to the secretary for the records of the Council. It shall prepare, thru its president, an annual report to the National Educational Association, setting forth the questions considered by the Council during the previous year, and placing before the Association, in succinct form, the work accomplished. It shall embody in this report a survey of those educational topics which seem to call for any action on the part of the Association. The Council shall appoint, out of its own number, committees representing the several departments of education, and thereby facilitate the exchange of opinion among its members on such special topics as demand the attention of the profession or of the public.

ARTICLE I—MEMBERSHIP

1. The National Council of Education shall consist of sixty members, selected from the membership of the National Educational Association. Any member of the Association identified with educational work is eligible to membership in the Council, and, after the first election, such membership shall continue for six years, except as hereinafter provided.

2. In the year 1885 the Board of Directors shall elect eight members—four members for six years, two for four years, and two for two years, and the Council shall elect eight members—five members for six years, two for four years, and one for two years; and annually thereafter the Board of Directors shall elect five members and the Council five members, each member, with the exception hereinafter provided for (sec. 5), to serve six years, or until his successor is elected.

3. The annual election of members of the Council shall be held in connection with the annual meetings of the Association. If the Board of Directors shall fail, for any reason, to fill its quota of members annually, the vacancy or vacancies shall be filled by the Council.

4. The term of service of the several members of the Council chosen at the first election shall be arranged by the Executive Committee of the Council.

5. The absence of a member from two consecutive annual meetings of the Council shall be considered equivalent to resignation of membership, and the Council shall fill vacancies caused by absence from the Council as herein defined, as well as vacancies caused by death or resignation, for the unexpired term. All persons who have belonged to the Council shall, on the expiration of their membership, become honorary members, with the privilege of attending its regular sessions and participating in its discussions. No state shall be represented in the Council by more than eight members.

ARTICLE II—QUALIFICATION FOR MEMBERSHIP

All members of the Council shall be either life or active members of the National Educational Association.

ARTICLE III—MEETINGS

There shall be a regular annual meeting of the Council held at the same place as the meeting of the National Educational Association, and at least two days previous to this meeting. There may be special meetings of the Council, subject to the call of the Executive Committee, but the attendance at these meetings shall be entirely voluntary. A majority of the Council shall constitute a quorum for the transaction of business at any meeting, whether regular or called; but any less number, exceeding eight members, may constitute a quorum for the transaction of business at the regular annual meeting, as defined in this article.

ARTICLE IV—THE WORK OF THE COUNCIL

The Council shall, from time to time, undertake to initiate, conduct, and guide the thoro investigation of important educational questions originating in the Council; also to conduct like investigations originating in the National Educational Association, or any of its departments, and requiring the expenditure of funds.

ARTICLE V—THE APPOINTMENT OF SPECIAL COMMITTEES AND EXPERTS

In the appointment of special committees, and in the selection of writers and speakers, it shall be the privilege of the Council to appoint such experts, whether members of the Council or not, as are deemed best qualified to conduct investigations.

ARTICLE VI—OFFICERS[1]

At the annual election of officers in 1904 the president of the Council shall be elected for a term of three years, the vice-president for a term of two years, and the secretary for a term of one year; and thereafter annually the vacancy caused by the outgoing officers shall be filled by the election of one person for a term of three years.

It shall be the duty of the president of the Council to prepare, with the assistance and approval of the Executive Committee, such a program for the annual meeting as shall realize as fully as practicable the purposes for which the Council was organized and exists.

ARTICLE VII—STANDING COMMITTEES

1. There shall be four standing committees: an Executive Committee, a Committee on Membership, a Committee on Educational Progress, and a Committee on Investigations and Appropriations.

2. The Executive Committee shall be composed of the president of the Council and of three others members, whose terms of office shall be so arranged that one new member may be chosen each year, beginning with the year 1899.

[1]As amended July 1, 1904. (See Minutes.)

3. It shall be the duty of the Executive Committee to provide an annual program by selecting, whenever feasible, subjects for investigation, and appointing committees to conduct such investigations. It shall be the duty of the Executive Committee to carry out the provisions contained in this constitution referring to volunteer and invited papers. It shall be the duty of the Executive Committee to provide a place on the program for the report on any investigation which may be ordered by the National Educational Association or its departments.

4. The Committee on Membership shall be composed of the president of the Council and six other members, whose terms of office shall be so arranged that two vacancies may be filled every year, beginning with 1899.

5. There shall be appointed annually a committee of one to submit, at the next meeting, a report on "Educational Progress During the Past Year," in which a survey of the important movements and events in education during the preceding year is given. This committee need not be selected from the members of the Council.

6. The Committee on Investigations and Appropriations shall be composed of nine members, whose terms of office shall be so arranged that three vacancies may be filled each year, beginning with 1903. No proposal to appoint a committee to undertake an educational investigation of any kind, and no proposal to ask the Board of Directors of the Association for an appropriation for any purpose, shall be acted upon until such proposal has been referred to this Committee on Investigations and Appropriations for report.

ARTICLE VIII—THE DUTIES OF THE COUNCIL

1. It shall be the duty of the Council to further the objects of the National Educational Association, and to use its best efforts to promote the cause of education in general.

2. The meetings of the Council shall be, for the most part, of a "round table" character.

ARTICLE IX—AMENDMENTS

This constitution may be altered or amended at a regular meeting of the Council, by a two-thirds vote of the members present, and any provision may be waived at any regular meeting by unanimous consent.

By-laws not in violation of the constitution may be adopted by a two-thirds vote of the Council.

OFFICERS, STANDING COMMITTEES, MEMBERS

OFFICERS FOR 1903–1904

FRANK A. FITZPATRICK	Boston, Mass.	*President*
JOSEPH SWAIN	Swarthmore, Pa.	*Vice-President*
JAMES H. VAN SICKLE	Baltimore, Md.	*Secretary*

EXECUTIVE COMMITTEE

THE PRESIDENT, *ex officio*

RICHARD G. BOONE	Yonkers, N. Y.	Term expires in 1904
NICHOLAS MURRAY BUTLER	New York, N. Y.	Term expires in 1905
ANNA TOLMAN SMITH	Washington, D. C.	Term expires in 1906

OFFICERS FOR 1904–1905

ELMER E. BROWN	Berkeley, Cal	*President*	Term expires in 1907
NATHAN C. SCHAEFFER	Lancaster, Pa.	*Vice-President*	Term expires in 1906
J. W. CARR	Anderson, Ind.	*Secretary*	Term expires in 1905

EXECUTIVE COMMITTEE

THE PRESIDENT, *ex-officio*

JAMES M. GREENWOOD	Kansas City, Mo.	Term expires in 1905
ANNA TOLMAN SMITH	Washington, D. C.	Term expires in 1906
HOWARD J. ROGERS	Albany, N. Y.	Term expires in 1907

COMMITTEE ON MEMBERSHIP

JAMES M. GREENWOOD, *Chairman*	Kansas City, Mo.	Term expires in 1905
JAMES H. VAN SICKLE	Baltimore, Md.	Term expires in 1905
W. T. HARRIS	Washington, D. C.	Term expires in 1906
ALBERT G. LANE	Chicago, Ill.	Term expires in 1906
CHAS. D. MCIVER	Greensboro, N. C.	Term expires in 1907
LIVINGSTON C. LORD	Charleston, Ill.	Term expires in 1907

COMMITTEE ON INVESTIGATIONS AND APPROPRIATIONS

NICHOLAS MURRAY BUTLER	New York, N. Y.	Term expires in 1905
NEWTON C. DOUGHERTY	Peoria, Ill.	Term expires in 1905
WILLIAM R. HARPER	Chicago, Ill.	Term expires in 1905
JAMES M. GREENWOOD, *Chairman*	Kansas City, Mo.	Term expires in 1906
FRANK A. FITZPATRICK	Boston, Mass.	Term expires in 1906
ELMER E. BROWN	Berkeley, Cal.	Term expires in 1906
EDWIN A. ALDERMAN	Charlottesville, Va.	Term expires in 1907
AUGUSTUS S. DOWNING	Albany, N. Y.	Term expires in 1907
LORENZO D. HARVEY	Menomonie, Wis.	Term expires in 1907

MEMBERS

NOTE: The letter "A" following a name denotes that the member is of the class elected by the Association; the letter "C," by the Council.

	Term expires
*W. H. Bartholomew, Louisville, Ky.	A 1905
*Frank A. Fitzpatrick, Boston, Mass.	A 1905
*I. C. McNeill, West Superior, Wis.	A 1905
*E. Oram Lyte, Millersville, Pa.	A 1905
*J. M. Greenwood, Kansas City, Mo.	A 1905
*Frank B. Cooper, Seattle, Wash.	C 1905
*Joseph Swain, Swarthmore, Pa.	C 1905
*Nathan C. Schaeffer, Harrisburg, Pa.	C 1905
*Lewis C. Greenlee, Denver, Colo.	C 1905
*Z. X. Snyder, Greeley, Colo.	C 1905
Calvin N. Kendall, Indianapolis, Ind.	A 1906
*J. H. Phillips, Birmingham, Ala.	A 1906
*Livingston C. Lord, Charleston, Ill.	A 1906
*James H. Baker, Boulder, Colo.	A 1906
Robert E. Denfeld, Duluth, Minn.	A 1906
*Lucia Stickney, Cleveland, O.	C 1906
J. N. Wilkinson, Emporia, Kans.	C 1906
*Aaron Gove, Denver, Colo.	C 1906
*J. W. Carr, Anderson, Ind.	C 1906
George H. Martin, West Lynn, Mass.	C 1906
*James M. Green, Trenton, N. J.	A 1907
*Augustus S. Downing, Albany, N. Y.	A 1907
*A. R. Taylor, Decatur, Ill.	A 1907
*Charles D. McIver, Greensboro, N. C.	A 1907
*E. H. Mark, Louisville, Ky.	A 1907
William E. Hatch, New Bedford, Mass.	C 1907
Bettie A. Dutton, Cleveland, O.	C 1907
Charles H. Keyes, Hartford, Conn.	C 1907
Andrew S. Draper, Albany, N. Y.	C 1907
Wm. K. Fowler, Lincoln, Nebr.	C 1907
*Charles F. Thwing, Cleveland, O.	A 1908
*Albert G. Lane, Chicago, Ill.	A 1908
Edwin A. Alderman, Charlottesville, Va.	A 1908
Charles M. Jordan, Minneapolis, Minn.	A 1908
*J. F. Millspaugh, Los Angeles, Cal.	A 1908
*W. M. Davidson, Omaha, Neb.	C 1908
E. W. Coy, Cincinnati, O.	C 1908
L. E. Wolfe, San Antonio, Tex.	C 1908
James E. Russell, New York, N. Y.	C 1908
Oliver S. Westcott, Chicago, Ill.	C 1908
*W. T. Harris, Washington, D. C.	A 1909
*William R. Harper, Chicago, Ill.	A 1909
Charles R. Skinner, Albany, N. Y.	A 1909
Ella F. Young, Chicago, Ill.	A 1909
*Howard J. Rogers, Albany, N. Y.	A 1909
H. B. Frissell, Hampton, Va.	C 1909
*Lewis H. Jones, Ypsilanti, Mich.	C 1909
*Elmer E. Brown, Berkeley, Cal.	C 1909
W. H. Black, Marshall, Mo.	C 1909
*Nicholas Murray Butler, New York, N. Y.	C 1909
*John W. Cook, DeKalb, Ill.	A 1910
*F. Louis Soldan, St. Louis, Mo.	A 1910
*Lorenzo D. Harvey, Menomonie, Wis.	A 1910
*R. H. Halsey, Oshkosh, Wis.	A 1910
*Carroll G. Pearse, Milwaukee, Wis.	A 1910
*Anna Tolman Smith, Washington, D. C.	C 1910
*Josephine Heermans, Kansas City, Mo.	C 1910
*James H. Van Sickle, Baltimore, Md.	C 1910
Albert Ross Hill, Columbia, Mo.	C 1910
*Newton C. Dougherty, Peoria, Ill.	C 1910

* Present at the Council sessions at St. Louis, Mo., 1904—forty.

HONORARY MEMBERS

Earl Barnes, Philadelphia, Pa.
William N. Barringer, Newark, N. J.
Newton Bateman, Galesburg, Ill.
Alexander Graham Bell, Washington, D. C.
D. Bemis, Spokane, Wash.
Thomas W. Bicknell, Providence, R. I.
Albert G. Boyden, Bridgewater, Mass.
Anna C. Brackett, New York, N. Y.
John E. Bradley, Randolph, Mass.
Edward Brooks, Philadelphia, Pa.
Richard G. Boone, Yonkers, N. Y.
George P. Brown, Bloomington, Ill.
William L. Bryan, Bloomington, Ind.
John T. Buchanan, New York, N. Y.
Matthew H. Buckham, Burlington, Vt.
David N. Camp, New Britain, Conn.
James H. Canfield, New York, N. Y.
Clara Conway, Memphis, Tenn.
Oscar H. Cooper, Abilene, Tex.
Oscar T. Corson, Columbus, O.
William J. Corthell, Gorham, Me.
Charles DeGarmo, Ithaca, N. Y.
V. C. Dibble, Charleston, S. C.
John Dewey, Chicago, Ill.
John W. Dickinson, Newtonville, Mass.
John Eaton, Washington, D. C.
Charles W. Eliot, Cambridge, Mass.
William W. Folwell, Minneapolis, Minn.
James A. Foshay, Los Angeles, Cal.
R. B. Fulton, University, Miss.
Charles B. Gilbert, New York, N. Y.
Daniel C. Gilman, Baltimore, Ind.
James C. Greenough, Westfield, Mass.
W. N. Hailmann, Needham, Mass.
G. Stanley Hall, Worcester, Mass.
Paul H. Hanus, Cambridge, Mass.
Walter L. Hervey, New York, N. Y.
Edwin C. Hewett, Normal, Ill.
J. George Hodgins, Toronto, Can.
Ira G. Hoitt, Sacramento, Cal.
James H. Hoose, Pasadena, Cal.
George W. Howison, San Francisco, Cal.
James L. Hughes, Toronto, Can.
Thomas Hunter, New York, N. Y.
Ellen Hyde, Farmington, Mass.
Edmund J. James, Evanston, Ill.
E. S. Joynes, Columbia, S. C.
David L. Kiehle, Minneapolis, Minn.
William F. King, Mt. Vernon, Ia.
Thomas Kirkland, Toronto, Can.
Henry M. Leipziger, New York, N. Y.
James MacAlister, Philadelphia, Pa.
Albert P. Marble, New York, N. Y.
Francis A. March, Easton, Pa.
Lillie J. Martin, San Francisco, Cal.
William H. Maxwell, New York, N. Y.
Charles A, McMurry, De Kalb, Ill.
Lemuel Moss, Minneapolis, Minn.
William A. Mowry, Hyde Park, Mass.
Mary E. Nicholson, Indianapolis, Ind.
John M. Ordway, New Orleans, La.
Warren D. Parker, River Falls, Wis.
W. H. Payne, Ann Arbor, Mich.
John B. Peaslee, Cincinnati, O.
William F. Phelps, Duluth, Minn.
Josiah L. Pickard, Brunswick, Me.
Edward T. Pierce, Los Angeles, Cal.
J. R. Preston, Jackson, Miss.
John T. Prince, West Newton, Mass.
George J. Ramsey, Bristol, Tenn.
Frank Rigler, Portland, Ore.
William H. Ruffner, Lexington, Va.
Ellen C. Sabin, Milwaukee, Wis.
Henry Sabin, Des Moines, Ia.
J. G. Schurman, Ithaca, N. Y.
H. H. Seerley, Cedar Falls, Ia.
H. E. Shepard, Baltimore, Md.
Irwin Shepard, Winona, Minn.
Edgar A. Singer, Philadelphia, Pa.
Euler B. Smith, Athens, Ga.
J. S. Spaulding, Peoria, Ill.
Homer B. Sprague, Newton, Mass.
J. W. Stearns, San Diego, Cal.
Thomas B.. Stockwell, Providence, R. I.
Grace Bibb Sudborough, Omaha, Neb.
John Swett, Martinez, Cal.
H. S. Tarbell, Pasadena, Cal.
W. R. Thigpen, Savannah, Ga.
H. S. Thompson, New York, N. Y.
L. S. Thompson, Jersey City, N. J.
Arnold Tompkins, Chicago, Ill.
Julia S. Tutwiler, Livingstone, Ala.
Delia L. Williams, Delaware, O.
J. Ormond Wilson, Washington, D. C.
Lightner Witmer, Philadelphia, Pa.
H. K. Wolfe, Lincoln, Neb.
C. M. Woodward St. Louis, Mo.

DECEASED MEMBERS

Robert Allyn.....1894
Israel W. Andrews.....1888
Joseph Baldwin.....1899
Henry Barnard.....1900
Reuben S. Bingham.....1902
Norman A. Calkins.....1895
Aaron L. Chapin.....1892
J. L. M. Curry.....1902
N. R. H. Dawson.....1895
Larkin Dunton.....1899
W. R. Garrett.....1903
Samuel S. Greene.....1883
John M. Gregory.....1898
George T. Fairchild.....1901
Daniel B. Hagar.....1896
John Hancock.....1891
William D. Henkle.....1882
Elnathan E. Higbee.....1889
Frank A. Hill.....1903
Burke A. Hinsdale.....1900
George Howland.....1892
John S. Irwin.....1901
Henry N. James.....1901
H. S. Jones.....1900
Merrick Lyon.....1888
James McCosh.....1894
Thomas J. Morgan.....1902
M. A. Newell.....1893
Birdsey G. Northrop.....1898
Edward Olney.....1886

DECEASED MEMBERS—*continued*

Gustavus J. Orr.....1888	William B. Powell.....1904	R. W. Stevenson.....1893
Francis W. Parker.....1902	Zalmon Richards.....1899	Eli T. Tappan.....1888
S. S. Parr.....1900	Andrew J. Rickoff.....1899	Charles O. Thompson.....1885
Selim H. Peabody.....1902	Charles C. Rounds.....1901	James P. Wickersham.....1891
John D. Philbrick.....1885	Edward R. Shaw.....1903	S. G. Williams.....1900
Matilda S. Cooper Poucher..1900	James A. Smart.....1900	Emerson E. White.....1902

SECRETARY'S MINUTES

FIRST SESSION.—MONDAY, JUNE 27, 1904, 2:30 P. M.

The Council met in the Lecture Room of the Court of the Education Building, and was called to order by the president, Frank A. Fitzpatrick.

The first paper of the session was presented by Howard J. Rogers, chief of the Department of Education, and director of the Congresses of the Louisiana Purchase Exposition, on the subject "The Lessons of the Exposition." This paper was discussed briefly by F. Louis Soldan and Calvin M. Woodward.

N. G. W. Lagerstedt, Swedish commissioner to the Louisiana Purchase Exposition, read a paper on "The Swedish Educational Exhibit and its Relation to the Schools of Sweden."

He was followed by M. Matsumura, councilor of the Imperial Department of Japan, with a paper on "The Japanese Exhibit and its Relation to Education in Japan."

On motion of William R. Harper, a committee was appointed to consider what changes, if any, ought to be made in the order of the work of the Council.

The president named as members of the committee William R. Harper, Aaron Gove, and R. H. Halsey.

The president appointed a Committee on Nominations, as follows: F. Louis Soldan, N. C. Dougherty, L. C. Greenlee.

SECOND SESSION.—WEDNESDAY, JUNE 29, 2:30 P. M.

The Council was called to order at the appointed hour by the President.

J. M. Greenwood submitted the report of the Committee on Investigations and Appropriations, as follows:

REPORT OF THE COMMITTEE ON INVESTIGATIONS AND APPROPRIATIONS

(SUBMITTED JUNE 29, 1904)

To the National Council:

The Committee on Investigations and Appropriations begs leave to submit the following report upon matters which have been before them for consideration:

1. The committee desires to call the attention of the Council and that of the Board of Directors to the necessity of formulating careful rules of procedure to govern the making of all appropriations, in order that the conduct of the business of the Association may not be embarassed or confused. The fiscal year of the Association ends on June 30, and it is important, in the judgment of the committee, that all appropriations made for any purpose should be chargeable against current income only, and that unexpended balances should be covered into the treasury on June 30 of each year. Where circumstances require, these unexpended balances may be reappropriated, and so made a charge upon the current income of the succeeding year without confusing the Treasurer's accounts.

The committee recommends that the Council ask the Board of Directors to adopt the following rules of procedure to govern all appropriations:

I. All appropriations for whatever purpose are chargeable against the current income of the Association for the year in which they are made. Unexpended balances will be covered into the treasury at the close of the fiscal year.

II. When circumstances require, unexpended balances will be reappropriated either in whole or in part for the purpose for which the original appropriation was made.

III. All appropriations for special purposes shall be made subject to the requirements of the conduct of the ordinary business of the Association, including the salary of the Secretary and the expenses of his office, the expenses of the Executive Committee, the publication and distribution of the volume of *Proceedings*, and the usual miscellaneous and incidental expenses.

IV. When the current income of any fiscal year is more than sufficient to meet the cost of the conduct of the ordinary business of the Association, then appropriations for special purposes shall become available in the order in which they are voted by the Board of Directors.

2. The investigation undertaken to determine the economic condition of public-school teachers thruout the United States has been successfully begun during the year by the committee of which Carroll D. Wright, United States Commissioner of Labor, is chairman, and a preliminary report has been made. Only a small portion of the appropriation of $1,500 made for the use of this committee has been drawn upon during the year, as the elaborate task of tabulating and interpreting the statistics which are being gathered is yet to be entered upon. The committee hopes to be able to submit a final report within the next few months. We recommend that the unexpended balance of the appropriation made one year ago for the use of this committee—namely, $1,109.29—be reappropriated for its use during the fiscal year beginning July 1, 1904, and that in addition thereto the further sum of $1,500 be appropriated to enable this committee to complete its investigation and report.

3. At the meeting of the Association held at Minneapolis in 1902 a committee was appointed to make a report on taxation for school purposes, and the sum of $1,000 was appropriated to meet the cost of this inquiry. (See volume of *Proceedings*, pp. 313 and 34.) Of this amount but $290.75 has been expended. The committee is still at work and hopes to report at the next annual meeting of the Council. We recommend that the unexpended balance of the appropriation made at Minneapolis—namely, $709.25—be reappropriated for the use of this committee.

4. At the meeting of the Association held at Boston in 1903 a committee was appointed to make a report upon the subject of industrial education in schools in rural communities The sum of $500 was appropriated for the use of this committee. (See volume of *Proceedings*, pp. 36 and 37.) It is expected that this committee will report at the next annual meeting of the Council. Of the original appropriation but $187.95 has been expended. We recommend that the unexpended balance of the appropriation made one year ago for the use of this committee—namely, $312.05—be reappropriated for its use during the fiscal year beginning July 1, 1904, and that, in addition thereto, the further sum of $500 be appropriated to enable this committee to complete its investigation and report.

5. At the meeting of the Department of Superintendence held at Cincinnati in 1903 a committee of five was authorized to seek the co-operation of like committees from the Modern Language Association and the American Philological Association "to consider the need and possibility of a universal system of key notation for indicating pronounciation, and to recommend for the indorsement of the societies such a system, or at least a simple, practical phonetic alphabet as the universal basis of such a system." The co-operation sought for was obtained, and the joint conference of scholars and teachers has completed its work and has prepared a report which is now in the press. Expenses have been incurred which amount in all to, approximately, $400. Of this amount it is expected that the

National Educational Association will contribute one-half, on the understanding that the remainder will be contributed by the two societies of scholars whose co-operation was sought. We recommend that the sum of $200 be appropriated by the National Educational Association to meet one-half of the cost of the work undertaken by the conference named.

6. We do not deem it advisable to recommend at this time that investigations be undertaken in regard to any one of the following matters, all of which have been urged upon the favorable attention of the committee:

I. Work in physics done in classes not preparing for college and work of a second year in physics, recommended by the Natural Science Department, June 28, 1904.

II. The courses of study in art schools offering applied-art training and allied topics, recommended by the Department of Art Education, July 10, 1903. (See volume of *Proceedings*, p. 666.)

III. "The Waywardness of children and their treatment in the juvenile court, institutes of charity and correction, at home and in school," as recommended by a committee of the Department of Child Study under authority of a resolution adopted July 9, 1903. (See volume of *Proceedings*, p. 754.)

IV. The formulation of contemporary educational doctrine by an existing committee of eleven which has submitted to the committee a report upon the specific topics named in a supplementary report of the Committee on Investigations and Appropriations, submitted July 9, 1903. (See volume of *Proceedings*, p. 309.)

7. There was referred to the Council, for the consideration of this committee, by the Board of Directors, a communication from a special committee from the Department of Superintendence, authorized at the meeting held at Atlanta, Ga., February 24, 1904, asking for favorable action upon one of two alternative plans to promote by the influence and the funds of the National Educational Association the simplified spelling of the English language. The communication bore the formal indorsement of representatives of the Illinois, Wisconsin, and Minnesota commissions on simplification of spelling, and was supported by a petition signed by 1,545 active members of the Association, as well as by numerous associations of principals and others. (See accompanying Exhibit B.)

Because of the manifest importance of this communication, and because of the number and authority of those who have signed and indorsed it, the Committee on Investigations and Appropriations has given to it careful and detailed consideration. As the result of this consideration we are unanimously of the opinion that, assuming the importance of simplified spelling and the cogency of the arguments advanced in its support, neither of the plans proposed would be an adequate, wise, or practicable method of promoting the cause of simplified spelling. Nevertheless, because of the interest manifested in this subject by so many active members of the Association, we are of opinion that the Council and your committee should seek expert advice upon the subject; and to that end we recommend that Calvin Thomas, Gebhard professor of the Germanic languages and literatures in Columbia University; George Hempl, professor of English philology in the University of Michigan—both of whom are past presidents of the Modern Language Association of America and scholars of distinction; Homer H. Seerley, president of the State Normal School, Cedar Falls Ia.; and Charles M. Jordan, superintendent of schools, Minneapolis, Minn.—both of whom are active members of the Association of long service, who have signed the petition which accompanies the communication referred to us; together with the President of the National Educational Association for 1904–5 when elected, as chairman, be invited to examine the communication, the petition, and accompanying documents, and to report to the chairman of the Council not later than June 1, 1905, upon the following points:

I. Is either Plan A or Plan B as submitted in the communication an adequate, wise, or practicable method of promoting the cause of simplified spelling?

II. If so, which of the alternative plans is preferable?

III. If not, will this Committee of Five outline some other mode of procedure which commends itself to their judgment?

IV. Does the Committee of Five advise the National Educational Association to lend its moral support or to contribute from its funds to any one of the plans suggested for the promotion of simplified spelling?

8. In view of the fact that the Committee on Investigations and Appropriations was instituted not only to advise the Council upon projects submitted to it by other bodies, but also to initiate plans for educational investigations and report them to the Council, we take pleasure in reporting that we have constituted a subcommittee, consisting of Messrs. Fitzpatrick, Harper, and Brown, to report to the full Committee on Investigations and Appropriations at their early convenience a plan or plans for suitable and worthy educational investigations to be favorably reported to the Council.

Appropriate resolutions are attached to this report.

Respectfully submitted,

J. M. GREENWOOD, *Chairman.*

ST. LOUIS, Mo., June 29, 1904.

The foregoing report was accepted, and the following resolutions were offered and adopted without objection, viz.:

1. *Resolved*, That the report of the Committee on Investigations and Appropriations made under date of June 29, 1904, be accepted and its recommendations adopted.

2. *Resolved*, That the Board of Directors of the National Educational Association be requested to adopt the following rules of procedure to govern all appropriations:

I. All appropriations for whatever purpose are chargeable against the current income of the Association for the year in which they are made. Unexpended balances will be covered into the treasury at the close of the fiscal year.

II. When circumstances require, unexpended balances will be reappropriated, either in whole or in part, for the purpose for which they were originally made.

III. All appropriations for special purposes shall be made subject to the requirements of the conduct of the ordinary business of the Association, including the salary of the Secretary and the expenses of his office, the expenses of the Executive Committee, the publication and distribution of the volume of *Proceedings*, and the usual miscellaneous and incidental expenses.

IV. When the current income of any fiscal year is more than sufficient to meet the cost of the conduct of the ordinary business of the Association, then appropriations for special purposes shall become available in the order in which they are voted by the Board of Directors.

3. *Resolved*, That the Board of Directors of the National Educational Association be requested to make the following appropriations for the fiscal year beginning July 1, 1904:

The unexpended balance of the appropriation of $1,500 made July 9, 1903—namely, $1,109.29—and additional appropriation of $1,500, for the committee to inquire and report to the Council upon the salaries, tenure of office, and pension provisions of public-school teachers of the United States.

The unexpended balance of the appropriation of $1,000 made July 10, 1902—namely, $709.25—for the committee to inquire and report to the Council upon taxation for school purposes in the United States.

The unexpended balance of the appropriation of $500 made July 9, 1903—namely, $312.05—and an additional appropriation of $500, for the committee to inquire and report to the Council upon industrial education in schools in rural communities.

The sum of $200 as a contribution toward the expenses of the Committee of Five authorized by the Department of Superintendence, February 25, 1903, to confer with committees of other associations in regard to a universal system of key notation for indicating pronunciation and to recommend a phonetic alphabet.

4. *Resolved*, That the president of the Council be authorized and instructed to invite Calvin Thomas, of New York; George Hempl, of Michigan; Homer H. Seerley, of Iowa; and Charles M. Jordan, of Minnesota, together with the President of the National Educational Association for 1904–5, when elected, as chairman, to advise the Council and its Committee on Investigations and Appropriations, not later than June 1, 1905, upon the questions stated in paragraph 7 of the foregoing report.

Elmer E. Brown asked whether the action of the Council on the request of the Committee of Eleven would have the effect of preventing future consideration of that request. The chairman of the Committee on Investigations and Appropriations was of the opinion that it might come up at any time under the head of "new business."

The president announced that John H. Finley, president of the College of the City of New York, who was to have given the report on the "Educational Progress of the Year," had found it impossible to prepare the report, and that this part of the program would have to be omitted.

THIRD SESSION.—Thursday, June 30, 2:30 p. m.

MEMORIAL SESSION

The Council was called to order at the appointed hour by the president. Memorial addresses were presented and ordered printed as follows:

William Bramwell Powell, by John W. Cook, De Kalb, Ill.

Frank A. Hill, by William E. Hatch, New Bedford, Mass.

Reuben S. Bingham, by Frank B. Cooper, Seattle, Wash.

FOURTH SESSION.—Friday, July 1, 2:30 p. m.

The Council was called to order by the president at the appointed hour.

The preliminary report of the Committee on Salaries, Tenure, and Pensions of Teachers was received and ordered printed.

Nicholas Murray Butler made an oral report of progress on behalf of the Committee on the Bureau of Education.

On motion of James H. Baker, the committee was requested to continue its work, and to communicate with the members of the Council as to the ways in which the members may aid the work of the committee.

Mr. Baker further moved that the Board of Directors be requested to renew the appropriation of $1,000 made last year for the work of the Committee on the Bureau of Education.

On motion of F. Louis Soldan, Mr. Baker's resolution was referred to the Committee on Investigations and Appropriations.

On motion of Mr. Butler, Mr. Baker was requested by the Council to present to the Association of State University Presidents and to the Association of Agricultural Colleges and Experimental Stations the views of the Council regarding the Bureau of Education and the action taken by the Council in reference thereto, and to invite the co-operation of those associations in such a manner as they may deem wise to give it.

L. D. Harvey, chairman of the committee to inquire and report concerning Industrial Education in Rural Schools, made an oral report of progress. The committee was continued and asked to report to the Council at its next meeting.

In the absence of Charles W. Eliot, chairman of the committee to define and report upon questions proposed by President Baker, of Colorado, Mr. Baker presented a report signed by the two members of that committee present at the meeting.

The chair ruled that the document could not be received, since only a minority of the members of the committee had made the report.

On motion of William M. Davidson, the communication was referred back to the committee for further consideration and report.

The report of the Committee on Proposed Changes in the Working Plans of the Council was then read by Mr. Gove, the secretary of the committee.

Members of the National Council:

Your committee, after consultation, conclude that definite formal recommendations are impracticable owing to the short time for such preparation. They beg, however, to make one positive recommendation today, reserving further report for the meeting next year.

The committee recommend that Art. VI of the Constitution of the Council be amended so that the opening paragraph shall read as follows:

"At the annual election of officers in 1904 the president of the Council shall be elected for a term of three years, the vice-president for a term of two years, and the secretary for a term of one year; and thereafter annually the vacancy caused by the outgoing officers shall be filled by the election of one person for a term of three years."

Your committee have informally discussed the following named subjects, and ask that the members of the Council, between now and the superintendent's meeting at Milwaukee, by correspondence, intimate changes, suggestions, or improvements in the constitution and organization of the Council, such as may occur to them, in order that the members of the committee may be able at that time to formulate a report to be presented to the Council at the next meeting.

1. The membership of the Council is now limited to sixty active members; with the list of honorary members the roll includes 175 people. Each one of these is subject to the rules, regulations, and privileges of the Council, with the exception that honorary members are barred from voting. Whether or not this membership is large enough is a fair subject for consideration.

2. The original plan of the Council, whereby standing committees were elected for the purpose of covering that part of the field included within the compass of the title of the respective committees, has received some attention, and the committee ask for opinions with regard to that feature.

3. And more important, as your committee believe, than others, is a written code or by-law distinctly defining the relations which exist between the Council of Education and the National Educational Association. Practical and important financial measures connected with the Association are now referred to the Council of Education. This, however, is a temporary expedient, which can be revoked at any hour by the Board of Directors.

Committee. { William R. Harper, *Chairman.*
Aaron Gove.
R. H. Halsey.

On motion of J. M. Green, the report was received, and the particular clause making recommendations was adopted as an amendment to the constitution.

The following report of the Committee on Nominations was presented by the chairman and adopted by the Council:

To the National Council of Education:

The Committee on Nominations for officers and committees of the Council begs leave to present the following names:

For *President*—Elmer E. Brown, of California, for three years.

For *Vice-President*—Nathan C. Schaeffer, of Pennsylvania, for two years.

For *Secretary*—J. W. Carr, of Indiana, for one year.

For *Members of the Executive Committee*—Howard J. Rogers, of New York, for three years, to succeed Richard G. Boone, whose term of office expires; J. M. Greenwood, of Missouri, for one year, to succeed Nicholas Murray Butler, resigned.

For *Members of the Committee on Membership*—Charles D. McIver, of North Carolina, for three years, to succeed Augustus S. Downing, whose term expires; Livingston C. Lord, of Illinois, for three years, to succeed L. D. Harvey, whose term expires.

For *Members of the Committee on Investigations and Appropriations*—Edwin A. Alderman, of Virginia, for three years, to succeed himself; Augustus S. Downing, of New York, for three years, to succeed himself; Lorenzo D. Harvey, of Wisconsin, for three years, to succeed himself.

Respectfully submitted,

F. Louis Soldan, *Chairman.*

William T. Harris, chairman of the Committee on Membership, presented the following report, which was adopted:

To the National Council of Education:

Your Committee on Nominations of new members begs leave to report as follows: The following named members, whose terms of office expire with the present meeting, are recommended for reappointment for six years:

Anna Tolman Smith, of the District of Columbia.

Josephine Heermans, of Missouri.

J. H. Van Sickle, of Maryland.

N. C. Dougherty, of Illinois.

The following persons are recommended for appointment to fill vacancies for the balance of the terms of office of the following named members who have been, by the provisions of the constitution, transferred to the list of honorary members by reason of their absence for two consecutive annual meetings of the Council:

1. W. K. Fowler, of Nebraska, to fill the place of W. F. King, of Iowa, whose term expires in 1907.

2. William E. Hatch, of New Bedford, Massachusetts, to fill the place of J. L. Spalding, of Illinois, whose term of office expires in 1907.

3. George H. Martin, of Massachusetts, to fill the place of Frank A. Hill, late of the same state, deceased, his term to expire in 1906.

4. To fill the place of Irwin Shepard, who resigns his active membership in the Council, his term expiring in 1906, they recommend J. N. Wilkinson, of Kansas.

5. They recommend A. Ross Hill, of Missouri, for six years, to fill the place of John Dewey, absent for two years, and whose term expires the present year.

6. They recommend to fill the place of Alexander Graham Bell, absent for two years, his term expiring in 1909, H. B. Frissell, of Virginia.

7. L. E. Wolfe, of Texas, in place of O. T. Corson, of Ohio, whose term expires in 1908.

All of which is respectfully submitted.

WM. T. HARRIS.
A. G. LANE.
AUGUSTUS S. DOWNING.
J. M. GREENWOOD.

On motion of Nicholas Murray Butler, the resolutions governing the order of business of the Committee on Investigations and Appropriations adopted by the Council at its meeting July 9, 1903, was amended to read as follows:

Resolved, That all applications for appropriations requiring the attention and consideration of the Committee on Investigations and Appropriations shall be placed in the hands of the Secretary of the National Educational Association at least sixty days prior to the regular meeting of the Council, with a full and detailed statement of the reasons for requesting the appropriation; and the Secretary of the National Educational Association shall forward a copy of such application to the president and secretary of the Council, and to each member of the Committee on Investigations and Appropriations; and be it further

Resolved, That the names of the Committee on Investigations and Appropriations, and notice of an hour set for the meeting thereof for hearing arguments, be printed as a part of the official program, and that the rule be printed in connection with such notice.

Mr. Butler made a statement of the work of the Committee on the Bureau of Education, and then tendered his resignation of the chairmanship of the committee.

On motion of Joseph Swain, Chairman Butler's resignation was accepted. The president then appointed William R. Harper as chairman of the committee.

Wm. T. Harris requested the Council to relieve him from service on the Committee on the Bureau of Education. The request was granted, and the president appointed L. D. Harvey to serve in his place.

The Committee on Resolutions presented the following report, which was adopted and ordered spread upon the minutes.

RESOLUTION COMMEMORATIVE

Be it resolved by the Council of the National Educational Association that in the death of William Bramwell Powell, Frank Alpine Hill, and Reuben S. Bingham this Council has lost three of its most highly esteemed and efficient members; the cause of education in the United States, three of its most active and loyal supporters; and the individual members of the Council mourn the earthly departure of friends and associates long tried and true.

J. H. PHILLIPS.
W. H. BARTHOLOMEW.
I. C. MCNEILL.

Mr. Brown, the president-elect, was introduced by the retiring president.

A roll-call of members showed an attendance at the various sessions of the Council of forty.

The Council then adjourned.

JAMES H. VAN SICKLE, *Secretary*.

PAPERS AND DISCUSSIONS

THE LESSONS OF THE EXPOSITION

HOWARD J. ROGERS, CHIEF OF THE DEPARTMENT OF EDUCATION AND DIRECTOR OF THE CONGRESSES OF THE LOUISIANA PURCHASE EXPOSITION

In an exposition the directorate proposes, but the exhibitor disposes. The classification may be perfect in its logic and comprehension, the space for installation and time of preparation ample in extent, the plan of arrangement thoroly approved and appreciated; and yet the right-hand member of the equation, composed as it is of a great number of factors varying in time, money, capacity, and interest, and all involved with that variable quantity, human nature, renders its solution extremely difficult. Probably the perfect educational exhibit will never be made till some benevolent person provides at least a half million or more for the purpose, so that material may be collected and installed about a well-defined plan and under the guidance of a single mind. This would be an educational museum. It is doubtful, after all, whether that would have the popular attraction and human interest of an exposition where variety rules and where the limitations of one exhibit bring into bolder relief the excellencies of another.

In this brief discussion of the St. Louis Educational Exhibit I am estopped officially from drawing comparisons, inasmuch as the jury of awards has yet to pass upon the exhibits, and the states and nations here assembled are still in a sense our guests. Some general observations may, however, be of interest.

First, at the risk of some repetition of former statements, I must sketch the object of the exhibit. Not everything can be shown in an educational exhibit. It is a common expression that you cannot exhibit the finer parts of education—that you lose the spirit and personality of the class-room. It is true that you cannot exhibit this. I sometimes wonder, in the present days of tick-tack routine, if our teachers would recognize it if we could. But neither in an agricultural exhibit can you exhibit the rural peace and environment of field and forest which mold the nature and the labor of the farmer. In education, as in agriculture, we can exhibit the course of study as well as the rotation of crops, the methods of instruction as well as the methods of planting, the machinery and the equipment for the work, the products of the laborer and the comparative results of his labor. We can exhibit enough to be of interest and value to the student, and establish a clearing-house for suggestive ideas whose influence will be carried to every quarter of the world.

The great results which have followed educational exhibits in England, in France, and in America are the best demonstration of their value. In the preparation of the educational exhibit at St. Louis there were two points made prominent: the participation of foreign nations, in order that a comparison might be instituted between the educational systems of the various countries

of the world noted for educational progress; and the thoro presentation of every phase of education in the United States, as exemplified in our public schools, our colleges and universities, our technical and professional schools, art, agriculture, defectives, and special forms of education.

In the preparation of the classification, made with the advice of a special committee consisting of Dr. Harris, Dr. Butler, and Superintendent Jones, of the National Educational Association, the field of education was divided into eight groups, as follows:

Group 1—Elementary Education.
Group 2—Secondary Education.
Group 3—Higher Education.
Group 4—Special Education in Fine Arts.
Group 5—Special Education in Agriculture.
Group 6—Special Education in Commerce and Industry.
Group 7—Education of Defectives.
Group 8—Special Forms of Education: Text-Books, School Furniture, School Appliances.

In its comprehensiveness the participation in the exhibit fully reaches our expectations. Thirty-three states and territories, four cities, and fifteen foreign nations have contributed to the elementary and secondary groups. Twenty-eight colleges and universities, and eight professional and technical schools, are exhibitors in Group 3. Seven of the best art schools of the country have, for the first time, made a classified exhibit. The agricultural and mechanical colleges, under a special grant of $100,000 from Congress, have made a collective exhibit which you are invited to examine carefully, as upholding in every detail the high grade of special instruction given in our farm laboratories. In Group 6, Commercial and Industrial Education, the business colleges and commercial high schools, and industrial and trade schools, have contributed many exhibits. In Group 7, Education of Defectives, the Convention of American Instructors of the Deaf and the American Association of Instructors of the Blind have combined to maintain a working exhibit, in order to demonstrate to the general public the thoro work which is being done for children deprived of all their normal faculties, and further to demonstrate the fact that the results of this instruction are so beneficial as to warrant the same care and maintenance on the part of the state as for normal children. In Group 8—Special Forms of Education: Publishers and School Equipment—the exhibits are many and instructive. We feel, therefore, that we have gathered here a basis for comparisons and generalization from which inferences and truths of value may be derived.

We regret to say that the strenuous life of the preparatory days of an Exposition has not permitted us to make a careful study of the exhibits, but in the examination we have made, two things seem to us to stand forth so prominently at every turn that they can be termed the pivotal points of the exhibit. The first is the similarity of the exhibit from every state and city in the United States, demonstrating the fact that we have a national system of

education; and the second is the subordination of the humanities to industrial instruction in the exhibits of foreign nations. I hinted at something like this three years ago at Chicago, as inferences from the Paris Exposition, but they were not then so clearly borne in on my mind, nor did they then occupy so completely the objective points of vantage.

Concerning the first point: It is impossible for any person to go from state to state in this exhibit and detect any radical distinction in the work presented or the methods illustrated. Such as does exist is entirely local in its reason, and is the evidence of the personality of the superintendent or the progressiveness of the community. There is no greater difference between Syracuse and Los Angeles than between Syracuse and Binghamton. It is a satisfactory and gratifying condition. The simultaneous advance along any line of progress of a nation vast in extent and power is an impressive fact. It indicates a flexibility of the mind and a solidarity of purpose which would be irresistible applied to any problem. There are the same elements of strength in the union of ideas and mental training of every section of a great country as in its physical and constitutional union. At the same time, I would not have it understood that there is a stereotyped form of processes in exhibits. There is enough originality and expression of experiment to insure against any possible danger of machine routine.

If it were asked why the educational systems of forty-five states, each under a separate, independent government, separated by tradition, clime, and culture, show such unity, I would assert that it is due to two causes: first, to the United States Bureau of Education, under the able guidance of its great chief, Dr. Harris; and, second, to the influence of the National Educational Association. The Bureau of Education cannot arbitrarily shape the policy of any state or section, but so wisely has the power of suggestion been used, so forcibly has the inference from statistics been drawn, and so clearly has the comparison of systems, foreign and domestic, been set forth, that our educational policies from east to west have by force of logic formed in parallel columns. Nor should we omit to mention, as a most directive force in this regard, the personal influence of the United States Commissioner of Education.

The second reason advanced for this unity—the influence of the National Educational Association—is very apparent. Drawing its constituency from every part of the union, meeting once a year in numbers, and twice a year thru its superintending officers, there is a constant interchange of criticism and information which holds in close relation every component factor. The special investigations of its Committee of Fifteen and Committee of Ten show in the curriculums of hundreds of elementary and secondary schools. There is no need to dwell on this point. The arguments are apparent as soon as it is mentioned, but its practical demonstration seems set forth so clearly in the exhibits about you as to form a great and accepted fact. I ask your careful examination of the exhibits with this point in view, and your acceptance or criticism of the statement.

The other main point emphasized by the exhibit—the subordination in foreign countries of the humanities to special industrial instruction—can be proved by preponderance of evidence, if by no other means. Three nations participating in the Exposition have thought it advisable to portray their educational system in a foreign land, and in comparison with other systems, in no other group than in technical and industrial education. In two others the predominance of the exhibits of this class serves to accentuate the main point. In the remainder the relative proportion is greater, with the exception of one; and in this one only is there something of a balance maintained between the two great lines of the mental development of the child. It is not my province at this time to discuss the tendencies of European and American elementary instruction. They are based on different theories of national maintenance, founded on different aspirations and traditions, and require comprehensive treatment. The statement that the illustration of this difference is found in the exhibits all about you is sufficient for this purpose.

These are to me the two main points of the educational exhibit.

A minor point is the scientific character of the exhibits and the exploitation of lines of research. This is, of course, a scientific age, and exhibits of the universities would naturally assume that form; but the tendency of each institution to lay stress upon some few lines of investigation is striking. Perhaps in this connection it may be said, without being open to the charge of discriminating between exhibits, that the exhibit of the German university laboratories in chemistry, physics, and biology is one of the most thoro and instructive displays ever made. Everything has its reason, and this exhibit seems to me a magnificent attempt on the part of Germany to demonstrate that in the field of special training, particularly in biology and medicine, her universities are still the foremost in the world. In view of the marvelous advance of American universities in this respect in the last fifteen years, and the acceptance of the idea that it is no longer necessary for American students to be trained abroad, the exhibit assumes a new and interesting aspect, even if it may not be assumed to become historic.

In the scientific group our own most noteworthy exhibit is that of the agricultural and mechanical colleges of the country, which have made a collective exhibit under the special appropriation of $100,000 made by the Congress of 1903. If there can be demonstrated to the public the great ulterior economy in the liberal maintenance of these institutions, a most important benefit to the country will have been insured.

In the same spirit has been undertaken the collective exhibit of the Association of the Schools for the Blind and the Schools for the Deaf, in which working classes will be maintained thruout the Exposition. No greater lesson could be taught the great public than to demonstrate beyond a doubt that the education of those defective in some physical respect is as much a duty of the state as the education of those normally endowed, and remove forever from their thoughts the idea of its being in any wise a charity.

Such are some of the more general lessons of the exhibit. There are scores of minor ones apparent to your close observation, which you are cordially invited to make. The exhibit has many strong points; it has some weak ones. There are some exhibits of institutions concerning which, to use the remark of our humorist philosopher, "it would have been money in their pocket if they had never been born." But, as an average, we believe the exhibit is high, and we ask for it your careful study and frank criticism.

In conclusion I beg to express publicly my thanks for the sympathetic co-operation of foreign countries in promoting the exhibit; for the magnificent support of the states and cities; and for the loyal assistance of the colleges, universities, and technical schools, many of which acted either thru personal friendship or from a sense of duty in supporting an educational enterprise.

THE SWEDISH EDUCATIONAL EXHIBIT AND ITS RELATION TO THE SCHOOLS OF SWEDEN

DR. N. G. W. LAGERSTEDT, SWEDISH COMMISSIONER TO THE LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

If I were to treat my subject in a thoro and exhaustive manner, I would first give you a full account of the different kinds of Swedish schools and their characteristics, and then a description of the Swedish educational exhibit at the World's Fair, and try to show you in how far characteristic features and traits of our educational system are represented in the Swedish exhibit. This, however, would require much more time than I am entitled to, and, besides, I am afraid that to treat in an oral address such a subject in this way would not be considered very pedagogic. It will be necessary, therefore, for me to follow another plan. As for the schools and the educational system of Sweden, anybody who wishes may have full information in a pamphlet distributed gratuitously in our educational exhibit, called *Education in Sweden*. I shall confine myself to mentioning the names of the several kinds of schools represented in the educational exhibits with a few remarks relative to some of them. Afterward I intend to pick out a few points of educational activity in Sweden, which may be of more general interest at present, and of which our exhibits give me reason to speak.

The schools represented in the educational exhibit of Sweden are the common schools, the state secondary schools for boys, the secondary schools for girls, the secondary coeducational schools, the technical schools, and the "people's high schools." The Swedish universities are not represented, with the exception that some photographs of the university buildings at our two oldest universities, those of Upsala and Lund, are exhibited.

The common schools occupy comparatively the greatest part of our educational exhibit. They receive children at the beginning of their school age and

have a regular course of six years, continuation schools not included. It may be mentioned that going to school has been compulsory in our country since 1842. The result is that in Sweden practically all grown-up people nowadays are able to read and write. The statistics show that the percentage of illiteracy in Sweden is only 0.1, Sweden as well as the other Scandinavian countries and Germany ranking foremost in this respect of all countries in the world. Statistical charts in our exhibit tell that the yearly expenditure for those schools, as well as the number of schools and teachers, are rapidly increasing, not only in proportion to the growth of the population, but faster. As a consequence of this, the number of pupils to each teacher is diminishing. At present it is less than forty-four pupils to each teacher for the whole country.

The state secondary schools for boys receive pupils who have passed satisfactorily three years in the fully developed common schools, or have obtained corresponding teaching. The entire course of these schools comprises nine years, after which the pupils pass the University entrance examination. At present Latin is begun six years before this final examination, the pupils who take up this study constituting the "classical line," the others the "modern line." Some pupils in the classical line also take up the study of Greek. From graphical charts in our exhibit you may find that the number of classical students in our secondary schools since 1875 has steadily decreased. In 1875 the greater number of pupils belonged to the classical line, only 15 per cent. in the four highest classes belonging to the modern. In 1903 the modern line was the more numerous, reaching 53 per cent. of the pupils in the same classes. In this year, 1904, a very important reform of our secondary schools for boys has been decided upon. The study of classical languages is to be considerably reduced. Latin will be studied only during the last four years of the course, instead of six as hitherto. Another important feature of this reform is that coeducation of boys and girls is to be introduced, for the first time by the state, in some public secondary schools.

If you inspect the Swedish educational exhibit, you will find from different kinds of schools a rich display of pupils' manual work, or, to use the Swedish word now introduced into the English language, "sloyd"—wood sloyd, cardboard sloyd, metal sloyd. There is a special exhibit, too, from the Sloyd Training College at Nääs, near the city of Gothenburg. You may know what a prominent part Sweden has played in the development of the educational wood sloyd, and that the man to whom the merit of this is due, the founder of the Swedish educational sloyd system, is the director of the Training College at Nääs, Otto Salomon. The Swedish educational sloyd system is also called the Nääs system after the place it was originally devised and worked out. Thousands of pupils have attended the sloyd courses at Nääs during past years, and among them hundreds of American and English people.

The Sloyd Training College at Nääs as well as other institutions at the same place have been founded thru the generosity of Mr. Abrahamson, an uncle of

Mr. Otto Salomon. Mr. Abrahamson was originally a merchant in Gothenburg, who, after having accumulated a large fortune by hard work, gave up his business and bought Nääs, the large estate of a nobleman. He died in 1898. The lively interest he took in education and teaching, which was manifested in various ways, especially in the teaching of sloyd, was further emphasized by the foundation which he established in his last will and testament. I am sure it will interest you to hear a little more about this foundation, "The August Abrahamson Foundation" as it is now called, and the arrangements thereof according to Mr. Abrahamson's will. In his will Mr. Abrahamson directed that his large estate Nääs should be used for the enlargement and support of the educational establishment founded by him there, and that this establishment should for all future time be kept up at Nääs under the name of "The August Abrahamson Foundation." Its aim shall be, by the continued training of male and female teachers who have already devoted themselves to the task of instruction, to work for education in general, and especially for the employment therewith of pedagogic sloyd. To the foundation Mr. Abrahamson bequeathed his whole estate of Nääs and a capital of about $102,000. The total value of the foundation is estimated at nearly $200,000, which, tho small in comparison with many American gifts to education, is considered a very large sum in our country. The main building, a beautiful castle, Mr. Abrahamson's residence (you may see photographs of it in our exhibit), is furnished elegantly and contains a large and valuable collection of works of art. All this is to be preserved, as far as possible, in its present condition. The great hall of the upper story and the whole ground floor are to be used for lectures, meetings, and receptions. The other rooms are at the disposal of prominent educators and other prominent personages who are interested in the institution and therefore desire to spend some short time at Nääs. It is with great pleasure that I am able to tell my hearers that there is a castle in Sweden where you will be received as honored guests only because you are educators, and just because you are educators; supposing, of course, you do not all come at once. The large park of the estate, one of the most beautiful parks of the country, is open to teachers and students of the institution. On a hill in this park Mr. Abrahamson lies buried. Mr. Salomon, the testator's nephew, is to have the sole and entire direction of the establishment as long as he lives.

In accordance with Mr. Abrahamson's expressed desire, the Swedish government has, on behalf of the state, accepted the foundation and guarantees the execution of the provisions of the will. Thus the last measures have been taken to establish a foundation hitherto unique of its kind in the sphere of education.

I had the pleasure of taking part in the first conference of Scandinavian teachers that was held at Nääs after the death of the founder. You may well understand that those who were present could not but remember with pleasure and gratitude that the stately building where the meetings were held,

with its elegant and artistic interior, was in a sense their own, and that somebody had thought so highly of them and their work that he had considered such a house a proper home for teachers.

Before leaving the subject of the "August Abrahamson Foundation" I ought to mention briefly that, tho the educational sloyd is the chief object of the same, it is by no means the only one. Other educational courses have been arranged at Nääs—courses for male and female teachers in the theory and practice of outdoor games, courses in school gardening, in school cookery, in needlework, etc.

There is another subject in connection with the Swedish educational exhibit to which I now wish to call your attention. In the exhibit of the secondary schools for girls and the secondary coeducational schools you will find a chart bearing this title, "Lectures on Social Topics in the Highest Classes of Secondary Schools for Girls in Stockholm 1903–4." This refers to a first step that has been taken during the school year just passed to introduce social science as a subject of teaching into the above-mentioned schools of Stockholm. Our higher girls' schools of today, in comparison with other Swedish schools, may be considered, from the psychological and pedagogic point of view, as representing a more ideal condition in education. The few secondary coeducational schools we have at present are also very progressive. This accounts for the fact that the girls' schools and coeducational schools have been the first to introduce a study the need of which is very much felt at present, owing to the peculiar conditions of our times. I wish to tell you now the circumstances which caused the taking up of the subject in question, and how the teaching of it has been arranged.

In Sweden, as in other countries of high culture, the interest in sociology and the feeling of social responsibility have of late years deepened and spread. The feeling of human solidarity and its obligations is more and more keenly felt. People begin to feel that redressing social abuses is a plain act of justice, and that charity in the form of alms is an infinitesimal fraction of our social duty. Work for the education of the people, improved care of the children of the poor, co-operative enterprises, protective legislation for workmen, inspection of factories, procuring of work, etc., are the results of this new sense of duty among all members of the community. Both young and old, however, who have become aware of their social duties, soon discover that their knowledge of the community in which they live is very superficial and unsatisfactory. According as the social questions are brought to the foreground among all civilized nations thruout the world, a knowledge of the organization of the community becomes more and more necessary. Because of this conviction, instruction in social science has been introduced in the secondary schools for girls in Stockholm.

The principals of the secondary schools for girls and the coeducational schools in the capital thus resolved that in the school year 1903–4 instruction in social science should be introduced into the highest class, where the average

age of the pupils is seventeen or eighteen years. Even the private schools that prepare for matriculation at the university, as well as most of the training colleges in Stockholm, joined in the movement. As it would certainly have been difficult, not to say impossible, to have found suitable teachers for each of the sixteen different schools and colleges separately, desirous of introducing the new subject, it was determined that the instruction should be given in the form of lectures to the pupils of all the schools at the same time. It was further resolved that the instruction should be noted on the time-table within the regulated school hours, and that the participation in it should be optional. The schools pay a sum of about five cents per pupil for each lecture, and are responsible for the attendance of the pupils who have entered their names, one term at a time. A committee of five persons, principally from among the principals of the schools, is at the head of the enterprise.

In the months of September and May, the first and the last of the school year, no lectures are held. Between the different groups of subjects the lectures are discontinued for a week now and then. Then the appointed hour may be spent in the respective schools in discussing or explaining the subject that has just been concluded. At the end of the school-year printed prospectuses and lists of books, which may be of use in the future, are to be distributed.

During the year twenty-one lectures have been held. I will give you some of the subjects of those lectures, as I think you will have a fuller idea of the instruction in question by hearing what these subjects are:

AUTUMN TERM

1. "On the Advantage of Social Studies." An introductory lecture.
2. "The Fundamental Features of the Swedish Local Legislation." Two lectures.
3. "The Fundamental Features of the Swedish Poor-Law Administration." One Lecture.
4. "Relief of the Poor in the City of Stockholm." One lecture.
5. "Private Charity in Stockholm." One lecture.
6. "The Children of the Poor." Four lectures: (1) what is done for the children before school age; (2) the organization of the common schools in the capital, and what is done for the children during school age; (3) what is done for the sick, the physically and the mentally deficient, and the neglected children; juvenile offenders; (4) young people's clubs in the United States—one extra lecture.

SPRING TERM

1. "Educational Work for the People." Two lectures: (1) by means of books, libraries, etc.; (2) by lectures and series of magic-lantern views.
2. "Industrialism." Three lectures.
3. "Housing Question, with Special Reference to Co-operative House-Building." Two lectures: (1) in Stockholm; (2) in the country.
4. "The Legal Position of the Swedish Woman." One lecture.
5. "The History of the Swedish Woman Movement." Two lectures.
6. "Social Settlement Projects and Their Practical Realization." One lecture.

Among the schools represented in the Swedish educational exhibit I have mentioned the "people's high schools." As these schools are characteristic

of the Scandinavian countries—Sweden, Denmark, Norway, and Finland—and are of very great importance there, I wish to say a few words regarding them. For lack of time I can give you only a general idea of what these schools are. They originated in Denmark, and the man in whom the conception of such schools first arose was the great Danish educator Bishop Grundtvig. The "people's high schools" are a kind of continuation schools or residential colleges in the country, intended chiefly for the students of the peasant or yeoman class, most of them being between the ages of eighteen and twenty-five. The young men attend five or six months in the winter; the young women, three months in the summer. The subjects taught contain the elements of a liberal education. The sagas and songs of the Scandinavian countries, the later literature and history of these countries, mathematics, and science are the chief subjects of instruction. The teaching is with the living voice rather than from text-books. The young men and women study, not for the sake of certificates or diplomas, but from a love of learning for its own sake. In this way as in no other the students are aroused from mental torpor, curiosity is excited, and the mental horizon extended. The work of the schools is founded on religious ideals, and is in many cases carried on by deeply religious men; but religion does not enter into them as an ordinary subject of instruction.

The first Danish school of this kind was erected in 1844. At present there are thirty people's high schools in Sweden, and more than eighty in Denmark. The influence of these schools on the development of the people has been very great. The present economical well-being of Denmark and the progress of agriculture there are due chiefly to them; not because the pupils have learned agriculture and technical subjects in the schools—these subjects do not enter at all into the curriculum of most of them—but because their minds have been developed in such a way that their practical work afterwards is "mixed with brains."

There are several other features of education in Sweden connected with the Swedish educational exhibit to which I should like to call your attention, if time permitted. I might speak of instruction in domestic economy, art in the school, school gardens, school journeys, the Pedagogic Library in Stockhlom, etc. As I cannot, however, claim for myself more time than has already been occupied, I must rest content with the brief remarks presented for your consideration.

THE JAPANESE EXHIBIT AND ITS RELATION TO EDUCATION IN JAPAN

MOSUKE MATSUMURA, SECRETARY, EDUCATION DEPARTMENT OF THE JAPANESE COMMISSION TO THE LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

Mr. President, Ladies and Gentlemen:

I account it the greatest honor ever given to me that I am allowed to speak before you.

I had heard of this World's Fair, which is one of the greatest undertakings

ever achieved by a nation, but when I actually saw, it surpassed my expectations. I have been particularly struck with admiration at the manner in which the educational exhibits are displayed, and the facilities given to me in installing the exhibits from Japan.

Our government has endeavored to conform as far as possible to the arrangement of exhibits as suggested by the Exposition officials, but some modifications have been made that our exhibits might not appear lacking the order as originally designed. The plan originally suggested was to have the exhibits arranged so as to give a perspective view of the Japanese educational system, besides displaying its different classes and kinds of schools. The organization, the methods of instruction, and the management of each school are shown by its publications and manuscripts. The results obtained by pupils and students are shown by their examination papers; and the work done by them, the schoolhouses and their equipments, the schoolrooms and the manner of teaching, are shown by photographs. The results obtained by the original researches and investigations in the Imperial University of Tokyo and other higher educational institutions are shown in the various objects and publications. The number of students, graduates, and instructors, and of universities, colleges, and schools, is given in the statistics.

I shall endeavor to give in detail some of the noteworthy features of the Japanese educational system, which may be seen in connection with the exhibits.

The primary education is given in kindergartens and primary and grammar schools. In the kindergartens children from three to six years of age are educated. The subjects of teaching include songs, gifts, and games. The kindergartens are conducted in accordance with the system of Froebel.

The study period of the primary, or ordinary elementary, school extends over four years, and the subjects taught comprise morals, the Japanese language, arithmetic, and gymnastics. In this school may also be taught drawing, songs, sewing, and manual work. The ordinary elementary-school education is compulsory, parents and guardians being under obligation to send to school all children between the ages of six and fourteen.

The study period in the grammar, or higher elementary, school extends over from two to four years. The curriculum includes morals, the Japanese language, arithmetic, Japanese history, political geography, natural sciences, drawing, songs, and gymnastics. English, manual work, agriculture, commerce, and sewing may be added to these studies. Of the exhibits of the elementary schools, the model showing the typical process of manual work was designed by a teacher of the Tokyo Higher Normal School.

The training of the elementary-school teachers and kindergarten nurses is had in the ordinary normal schools. The study period in these schools extends over four years for men and three years for women. The entrance requirements are graduation from the higher elementary school and at least two years' preparatory studies beyond those of the elementary school. The entrant must

be at least sixteen years of age if a man, and fifteen years if a woman. The courses of study of the normal school comprise morals, education, Japanese, Chinese literature, history, geography, mathematics, natural sciences, physics, chemistry, European music, drawing, and gymnastics, besides one selection out of English, agriculture, commerce, or manual work. For women there are specially prescribed courses in domestic science and sewing.

In all but a few elementary schools tuition is free, and in the normal schools as a rule financial aid is given to the students who need such.

A more liberal education is given in the secondary schools. To this class belong the middle schools for boys, and the higher schools for girls. The study period in the middle school extends over five years, and that in the girls' higher school over four or five years. The age of the entrants must be over twelve years, and the requirement for admission is a completed two-year course in a higher elementary school.

The course of study in the middle school comprises morals, Japanese, Chinese literature, foreign languages, mathematics, history, geography, physics, chemistry, natural sciences, drawing, songs, and gymnastics; the gymnastics including military drill. The course given in the girls' higher school includes morals, Japanese, foreign languages, mathematics, history, geography, natural sciences, domestic science, sewing, drawing, music, and gymnastics. Education, Chinese literature, and handiwork may sometimes be added to this. A special art course is also included in the girls' higher school.

The training of the teachers for the secondary and ordinary normal schools is received at the higher normal schools for men and for women. The course of study in these schools extends over four years, the entrance requirements being graduation from a middle or an ordinary normal school for men, and from a girls' higher school or a girls' ordinary normal school for women. The course of study in the higher normal school for men includes Japanese, Chinese literature, English, history and geography, mathematics, physics and chemistry, and natural sciences. The course of study given in the higher normal school for women comprises literature, sciences, and arts.

Higher education is given in the Imperial University, the higher schools, or *Koto Gakko*, and other special institutes of law and medicine. The higher school offers the courses of study required for admission to the Imperial University, the courses being divided into three classes, namely (1) law and literature; (2) engineering, science, agriculture, and pharmacy; (3) all those studies required for entrance to the Medical College of the University. The studies in the higher school extend over three years, the entrance requirements being graduation from a middle or high school.

The Imperial University consists of a University Hall and colleges. The University Hall has been provided for the purpose of studying profounder principles of science and learning, and for original researches and investigations such as may be taken up only by qualified graduate students. In the colleges are given professional and scientific training, and training in the field

of general culture having an important bearing upon the welfare of the state. The college studies last from three to four years, the requirement for admission being a diploma from a higher school.

The Imperial University includes at present six colleges; namely, the Colleges of Law, of Medicine, of Engineering, of Science, of Literature, and of Agriculture. The College of Law is further divided into two departments, law proper and politics; the College of Medicine is subdivided into two departments, medicine proper and pharmacy. The College of Engineering is divided into nine departments: (1) civil engineering; (2) mechanical engineering; (3) naval architecture; (4) the technology of arms; (5) electrical engineering; (6) architecture; (7) applied chemistry; (8) the technology of explosives; and (9) mining and metallurgy. The College of Literature is subdivided into nine departments: (1) philosophy; (2) Japanese literature; (3) Chinese literature; (4) Japanese history; (5) history; (6) comparative philology; (7) English literature; (8) German literature; and (9) French literature. The College of Science is subdivided into eight departments: (1) mathematics; (2) astronomy; (3) theoretical physics; (4) experimental physics; (5) chemistry; (6) zoölogy; (7) botany; and (8) geology. The College of Agriculture is subdivided into four departments: (1) agriculture proper; (2) agricultural chemistry; (3) forestry; and (4) veterinary medicine.

The special institutes of medicine generally have two departments, medicine and pharmacy, but sometimes have only one department — medicine. The special institutes of law usually have two departments, law proper and politics. The studies prescribed in these institutes as a rule extend over two or three years, the entrance requirements being graduation from a middle or a high school.

The Imperial University of Tokyo, which has installed the exhibits at the Palace of Education and Social Economy, was founded thirty-four years ago. It is the oldest high educational institution in Japan and has the most complete equipment for instruction in every branch of learning. Its College of Medicine is provided with a well-organized hospital, which is open both to the students and to the public. The laboratories and workshops of the College of Engineering are provided with the latest type of apparatus and machinery, and other appliances especially designed for original investigations. The Tokyo Astronomical Observatory, the Botanical Garden, the Seismological Observatory, and the Marine Biological Station form part of the College of Science. In the College of Agriculture the veterinary hospital and the experimental forestry reserves, of which there are five located in different provinces, form the chief feature. A library and a museum are attached to each of the colleges, besides a large library belonging to the university.

The exhibits of the Imperial University of Tokyo are chiefly from the College of Science, the College of Medicine, the College of Literature, and the College of Agriculture. Among the exhibits from the College of Science are copies of the journal issued by the college. The results of the original research

by the instructors and students in the University Hall are published in the journal, and some of the noteworthy achievements by the Japanese in the fields of science and art are presented here. The most interesting feature in the exhibits from the college is the relics of the Stone Age discovered in various provinces in Japan. These prehistoric remains show the numerous races or tribes that inhabited the Japanese islands, and throw much light on the study of anthropology.

Another noteworthy feature in the exhibit of this college is the apparatus for measuring the variation in length of a magnetized body by means of magnetization, invented by Professor Nagao, of the Imperial University of Tokyo. By the use of this apparatus, measurements of the variation may be had, under conditions obtained by optical arrangement, having an accuracy of five-millionths of a centimeter. The results of the investigations in magnetism pursued by the aid of this apparatus were published in the *Philosophical Magazine*, issued 1894–1902, and in other scientific periodicals, such as *Wiedemann's Annalen*.

A tromometer, which is the invention of Professor Omori, of the Tokyo University, and others, is also exhibited by the Science College. This instrument was originally designed for the use of the Earthquake Investigation Committee appointed by the Japanese government. This apparatus differs from an ordinary seismometer in the fact that it may be used to register much finer vibrations of the earth than it has hitherto been possible to observe by other instruments. Since the invention of the tromometer, seismology in Japan has reached such a high state that it is now possible to predict earthquakes twenty-four hours in advance.

Of the exhibits of the College of Literature the chief features are the apparatus used in the psychological laboratory. These apparatus include many inventions by the Japanese scientists.

Anatomical models made of paper and paper parchments are exhibited by the College of Agriculture.. These show in every detail the anatomical features of the domestic animals.

Art education in Japan has not yet attained a popular standing. There are, however, two important art schools, the Imperial Art School and the Academy of Music, both in Tokyo; besides numerous private and public institutes of art and music, found thruout the country.

In the Imperial Art School are offered nine courses of study extending over five years. The requirements for admission to this school are graduation from a middle school and training in free-hand drawing. The courses include Japanese painting, European painting, designing, casting, forging, chiseling, sculpture, and lacquer work. The courses prescribed in the Academy of Music comprise vocal culture and instrumental music, the period covering three years. The qualifications required for entrance are those possessed by the students of the third-year class of the higher school for girls. A teachers' training course is also given at the Academy of Music, the entrance

requirements for this course being graduation from a higher school for girls or a normal school. The teachers' course extends over three years. The music course includes both Japanese and European, altho the latter is chiefly taught. The teachers of music and of art for middle and normal schools in Japan are chiefly supplied from these two art institutes at Tokyo.

Industrial education in Japan may be divided into three grades. Entrance to an institute of the highest grade is granted to graduates of the middle school. The period of study covers three years. The middle-grade industrial education is given to those who possess the qualifications of a grammar-school graduate. The period of study in this grade usually covers three years. The lowest grade of industrial education may be offered in such schools as the apprentice schools and the industrial continuation schools.

Of the industrial schools in Japan those which have exhibits here are the Tokyo Higher Technical School, the Sapporo Agricultural School, and the Tokyo Higher Commercial School. These three represent the highest industrial education in Japan. Conditions for admission to these three schools are the same as those prescribed for the industrial schools in general. The course of study in the Tokyo Higher Technical School covers three years; that of the Sapporo Agricultural School, four years; and that of the Tokyo Higher Commercial School, four years. The curriculum in the first-mentioned school includes mechanical engineering, electro-chemistry, applied chemistry, dyeing, weaving, ceramics, designing, and making of cuts for printing. The prescribed courses in the Sapporo Agricultural School comprise agriculture proper, civil engineering, and forestry. The courses given in the Higher Commercial School are a commercial course proper, a consul's training course, and a special course for training in every branch of trade, such as banking, insurance, etc.

The middle-grade industrial school is provided for both sexes. The schools of this grade having exhibits here number six for boys and one for girls. There are, besides, one agricultural and one commercial school which also have exhibits. The lowest-grade industrial schools exhibiting here are two.

Among the exhibits from the highest grade of industrial schools the most interesting feature is the method of coloring metals. The method of coloring metals was originally a Japanese art, which the French artists have tried to imitate. This Japanese art has been kept secret for a long time. As the result of teaching this art to the students of the schools improvements have been introduced till the art attained almost to perfection, and the Japanese today are able to obtain the color without using any coloring matter, and in such manner that the color will never fade from the metals. This new method was invented by Mr. Kobayashi, assistant professor at the Higher Technical School.

Education of the blind and deaf is steadily improving. There is one institute of this kind in Tokyo under the direct control of the central gov-

ernment, besides several similar institutions in different provinces which are under the subsidy of the prefectural or municipal governments. The courses of study are divided into general and special. In the general courses are included those given in the primary and grammar schools. The special course is designed to train the pupils for such professions and trades as will fit them to make a living; and includes music, massage, and acupuncture, for the blind, and painting, sculpture, sewing, netting, and embroidery for the deaf. The training in these special courses enables the pupils to obtain a living better than that in any other branch.

A peculiar course in the studies is that of acupuncture. This is the method of treating affected parts of the human body by pricking with a silver needle, the medical art used with such beneficial results by the Japanese. As to the beneficial effect of this art there was much doubt till it was decided to subject the method to the test of medical experts, who declared it perfectly harmless. The teaching of this art to the blind, which was for some time prohibited because of the doubtful effect, has been restored.

The text-books used by the blind are of point letters, which were specially invented by Mr. Ishikawa, an instructor of the Tokyo Blind and Deaf School, and in which is used the Japanese alphabet consisting of fifty letters, modified after the method of M. Braille, of France.

Memorial Addresses

William Bramwell Powell

BY JOHN W. COOK, PRESIDENT, NORTHERN ILLINOIS STATE NORMAL SCHOOL, DEKALB, ILL.

It was in the late sixties that I first began to hear of a man who bore the alliterative title of "Powell, of Peru." He was the superintendent of schools in a town at the head of steamboat navigation on the Illinois river. The population was quite exclusively German and had become accustomed to leave the schoolmaster to his own devices. It was evident that he had improved his opportunity to do some thinking and experimentation on his own account. It was currently reported that some of the time-honored traditions had been ruthlessly desecrated by the introduction of various novelties in the way of school occupations, and that the children were doing many things not set down in the books. At a time when the study of the ordinary lessons was the exclusive employment of the schools such reports awakened an interest quite similar to that which some ten or a dozen years later made Quincy an educational Mecca.

I had recently become a schoolmaster, and was already hungering for some new ideas. I heard no little of what was going on at Peru, and had a warm desire to know the man and his methods. Nor was my interest diminished when I learned that the normal school in which I was teaching did not meet his approval. We were having trouble enough with the ultra-conservatives without encountering the opposition of a man who was winning the admiration of the school people by the novelty and excellence of his work. I sought an early opportunity to find him out.

I was invited to assist in the exercises of a teachers' institute in the little town of Rutland, where one Aaron Gove was master of the village school. This was in 1868. Mr. Powell was there. He was then thirty-two years old. He was of medium height, of rather slight figure, keen-eyed, square-browed, heavily mustached. His voice was rather sharp, with a slight nasal quality; his speech was somewhat hesitating; and his manner in general indicated a man of action rather than of words. It was shortly after this that an acquaintance began which ripened into an affectionate intimacy that was in no way interrupted until his removal to Washington city some seventeen years later.

Mr. Powell was born in Castile, N. Y., in 1836. He grew up on a farm, and until his manhood was engaged in the arduous life that such an experience involved. His father was a Methodist circuit rider, and in consequence

was absent from his home most of the time. When he returned he was, in the language of a friend, "more concerned with the fertilization of his spiritual acres than with the soil and crops of his quarter section." A heavy responsibility thus devolved upon the self-reliant and ambitious lad. It was to the rigorous discipline of this experience that Mr. Powell attributed the larger part of whatever success his subsequent life brought to him.

He went to the district school, prepared for college at Wheaton, and graduated at Oberlin. He always regarded his education as partial, and greatly regretted the lack of more liberal training. He forthwith deserted the farm, taught a district school for a couple of years, in 1860 secured the principalship of the Hennepin, Ill., schools, changed to Peru in 1862, to Aurora in 1870, and to Washington city in 1885.

Mr. Powell was first and last a schoolmaster. I have never known a man more thoroly devoted to his profession. He gave himself to its duties with a passionate absorption that left little thought or care for anything else. His industry was tireless. Dr. Gregory would have said of him that he was at once God-like and ox-like. He believed in a thorogoing organization of the subject-matter of the curriculum. No detail was too minute to escape his critical attention. It was my fortune to work with him for weeks at a time in summer institutes, and he wore out the nights with his patient preparation. He was not a very easy speaker, and possessed a native timidity that few of his friends suspected. Against this infirmity he ceaselessly fortified himself. It is quite possible that this was outgrown in his later life, with which I was much less familiar, but he often complained of the annoyance that it gave him in his notable career in Illinois.

To the work thus carefully digested he introduced his teachers. Of all of the superintendents that I ever knew he did most for their special preparation. He was a perpetual normal school. They were equipped by his discipline with an incomparable technic in the detailed processes of presenting the subjects of the curriculum. He dealt with the art of teaching rather than with its science, and thus they acquired great proficiency. Did he leave no room for their individuality to manifest itself? We often discussed this feature of his system. He insisted that his plans were the joint product of himself and the teachers, and that they had their full opportunity to protect themselves against the "tyranny of the superintendent." They were always manifesting their gratitude for his assistance, at any rate.

He was a pioneer in many of the most significant reforms of the last thirty years. He was the uncompromising foe of the old technical grammar grind with its endless parsing. He believed it possible to introduce children to an acquaintance with the structure of our good English tongue in such a way that when the time arrived at which the elaborate grammar of our almost grammarless language is ordinarily taught there would be no need of it. It was in the early seventies that he worked out his language lessons for the elementary grades, with nature study for their concrete filling. You will

find them in the pages of the old *Illinois Schoolmaster*, Aaron Gove, editor. They were the forerunners of the countless swarm of Introductions to English Grammar that sprang up within the five or six following years. What he did in this direction is only an illustration of his work in science, drawing, and manual training. He was years ahead of nearly all of us in these modern additions to the course of study.

His promotion to the superintendency of the Aurora schools gave him an ampler opportunity to work out his ideas. To this end he established one of the first city training schools for the preparation of teachers. He took his most promising high-school graduates and put them thru the rigorous discipline which I have already mentioned, permitting them to act as assistants in the rooms that they might elect for their future work. By this arrangement, and by his constant instruction of the members of his corps, he succeeded in putting himself into every room of his city. I am not discussing the wisdom of his plans; I am only his biographer. I have only to add that, if you wish to discover his defenders, you have but to find any of his old teachers.

Altho so engrossed by the duties of his position, he was an active worker in the educational associations of the state and nation. Nothing was more natural and fitting than that the teachers of Illinois should look toward him as a suitable leader, and he was nominated for the office of superintendent of public instruction in 1874. Unfortunately it was at a time when the party to which he belonged met an unexpected defeat. It would have been interesting to see him with his liberal ideas and tireless persistence at the head of the educational forces in Illinois. In the same year he received from Lombard University the degree of M.A.

It was not long before the idea of a series of text-books began to take shape in his mind. They were all worked out within the next twenty years, and with his characteristic patience and industry. They consisted, besides the language books, of a series of readers, which were prepared with Miss Emma J. Todd's assistance, Miss Todd having been for years one of his most faithful training teachers. Later he produced a United States history and an English grammar, being assisted in the latter enterprise by Miss Connelly.

In 1885 he was elected to the superintendency of the public schools of Washington city. The old régime had at last lost its control. It was in good fighting trim, however, and made things very interesting for him. The change from the modest Illinois city, where things were at his command, to the national capital, with its inevitable political intrigues and with the conservatism of a southern city in all educational matters, must have been little short of a revolution in his life. His famous brother, the heroic major, won great renown by his canon explorations. I have long regarded his achievements as the easier task. I am indebted to a sympathetic student of his work for information respecting this portion of his professional career.

He found the schools quite good in some respects, but given over to mechani-

cal routine to a distressing degree. I could easily have predicted his point of attack. I knew that he would begin with the reformation of the teaching body. It is the well-spring of life for the school. He threw himself into the task with his characteristic energy. He met them individually and in groups. He called to his aid those whom he could trust. He employed skillful supervisors, especially for the elementary grades. He enlarged the scope of the city normal school and required greater maturity in his teachers. But everywhere he gave them himself in largest measure. His peculiar strength lay in his personal force, in the clearness and definiteness of his plans, in his indefatigable industry, in the quiet enthusiasm that pervaded his life, and in the absolute faith which he always manifested in the possibilities of the teacher.

His great opportunity had now come. His field was large enough to satisfy his ambition. What he had been preparing himself to do in his years at Peru and Aurora was now to be written large at the capital of the nation. Nature study, manual training, drawing, cooking, sewing, domestic economy, evening schools, sanitary supervision of the children, the decoration of school grounds and school buildings, the erection of suitable structures for the housing of the school population—all of this, and at the same time the best possible instruction in the indispensable features of the old curriculum where formalism and routine had been, to say the least, too seriously in evidence—this was, indeed, a task to sober the bravest and most hopeful.

Who will write the history of that splendid service? The Business High School, the first in the country, will remain a monument to his breadth of purpose and fearless initiative. The modern school buildings, the embodiments of his ideas of utility and comfort, will perpetuate the memory of his fifteen years of wise administration. The place of the great city in the educational rating of experts will measure his ability to touch the spiritual side of his problem in a vitalizing way. It was said of "Boss" Shepherd that he found Washington a sprawling village and left it the finest city in the world. It may be said of William Bramwell Powell that he found the same city twenty-five years behind the times in its educational ideas and practices, and left it the equal of any other metropolitan center on the continent.

Mr. Powell was a man of great ambitions. Realizing that a rare gift had come to his only daughter in her marvelous musical endowment, he counted nothing as lost that enhanced her culture and widened her powers. Mrs. Powell was at one with him in this enterprise that resulted in a fame that is shut in by no continent and limited by no seas. It demanded sacrifices that were severe, but they were cheerfully met.

Next to this dream of his early life, perhaps as dear to his heart, was this other dream of a great city system of popular education with which his name should be forever linked, and in which every child, without regard to station, should have the best possible chance to fit himself for the free life of this dear land of our common birth. It must have been a peculiar gratification to him to know that both of these ambitions were richly achieved. At the same time

he left in his annual reports a body of pedagogical literature which reveals his ideas, his motives, and his methods.

At the last he fell out of line like a soldier on the march who had spent all of his energies with prodigal hand in loyal service to his fatherland. By foreign travel he had done something to repair the waste of life, but he had hastened back to his post before there was a full recovery. When he retired from the Washington schools he was in the full maturity of his ripened intellectual powers. Shortly after he was sent by the Appletons to the Philippine Islands to ascertain the educational needs there as seen from the standpoint of the publishers. He returned with somewhat enfeebled health, but there was no thought of a fatal termination. He was sitting alone in his room engaged with the morning paper, a member of his family having left him a moment before. When she returned after a brief absence, she stood in the presence of the dead.

He was married to Minnie Paul in Peru, Ill., in 1865. She and their two children, Maud and William Paul, survive him.

Illinois always claimed him as her own. Residence in Washington city does not make one lose his citizenship in the home from which he went. And from the state of his adoption I bear to his family the loving sympathy of his friends of twenty years ago, whose affection is undimmed by separation and undiminished by the lapse of years.

Frank Alpine Hill

WILLIAM EDWIN HATCH, SUPERINTENDENT OF SCHOOLS, NEW BEDFORD, MASS.

One who from youth chooses for himself the highest ideals of manly virtue, and shapes his life to their realization, sets himself apart at the beginning of his career from the average man. Whether he secures the fame that is accorded to genius and its accomplishments; whether he achieves the renown that is given by the world to him of brilliant attainments; whether his sphere of influence is as broad as the man whose talents are greater, he at least touches with the wand of the good magician all who come within the sphere of his life and his works.

The statue of Dr. Hill may not be raised upon the grounds of the Massachusetts State House beside that of his great predecessor in office, Horace Mann; but the consistency and symmetry of his energetic, faithful, and Christian life will ever be silent but potential influences for good in the annals of Massachusetts educators.

Dr. Hill was a fine type of the New England boy who sought an education in the small college forty years ago. Yearning for knowledge, he entered college with full recognition that he must depend largely upon his own efforts to pay his way. This he did chiefly by teaching, which meant long absences

from his class, and its consequent loss of lessons and instruction. But the disadvantages under which he labored to secure an education bring out in clear perspective the character which so marked his later life. Notwithstanding his enforced absences, necessitating periods of double work, he not only maintained his position in his class, but graduated among the first and attained Phi Beta Kappa.

But it was not alone in scholarship that Dr. Hill distinguished himself while in college. He was a believer in, and a practical exponent of, athletics when they were not the fetich of the college student that they are today, and we find him serving as captain of the baseball nine. He was also editor of the *Bowdoin Bugle*, curator of the Natural History Museum, and class prophet.

Thus in his early days he reveals himself a man who recognized the worth of a many-sided education. It is, therefore, not strange that he should turn from the law, which he first chose as his profession, to take up teaching as his life-work, a work crowned with success and one in which he was happy.

Mr. Hill was born in Biddeford, Me., October 12, 1841. He was fitted for college in the high school, and entered Bowdoin College at the age of sixteen. He was graduated from college in 1862, and was chosen principal of Limington Academy, Maine, where he remained one term, when he was elected principal of the high school of his native city. He read law in 1864–65, but decided at that time to give up the profession which he had originally intended to pursue and devote his life to teaching. In 1865 he was elected principal of the high school of Milford, Mass. He remained here five years, when his marked success as a teacher led to his election to the principalship of the high school of Chelsea, Mass. In 1886 he accepted the principalship of the Cambridge English High School. While principal of this school he became closely identified with and took great interest in the development of the Rindge Manual Training School. In 1903 he was called to the Boston Mechanical Arts High School, as its first master, and he organized the school on the lines which have since made it so successful. In 1894 he was elected secretary of the State Board of Education, and held this position until the time of his death, which occurred September 12, 1903.

Altho Dr. Hill's administration of the office of secretary of the Massachusetts State Board of Education was an enviable one, it was in the twenty-seven years of service as principal of secondary schools that his influence was most felt and his great work done. Dr. Hill was a rare teacher. Courteous, forbearing, enthusiastic, inspiring, and imbued with high ideals of civic virtue and scholarship, he won the respect and love of all who came under his instruction and supervisorship. Many tributes paid to him as man and teacher by those with whom he was associated for many years show the estimation in which he was held.

One says:

He was first of all a gentleman in all his instincts and in all his words and acts. He had a conception of the obligation of the teacher to the pupil, as well as of the obligation

of the pupil to the teacher, and he endeavored to meet his obligation. His personal influence was most salutary. He gave himself to his pupils without reserve, and they appreciated it and responded, giving him their heartiest affection and the best they had and were. His kindliness of spirit and manner opened for him many an avenue to a pupil's mind which would have been closed to a man of different ways.

And this also from the pupils who sat under his teaching:

Hon. Frank A. Hill was a man to be looked up to and admired. We, his former pupils, who have benefited by his unceasing labor, realize the vast amount of work that he has done. As we study his life and character we cannot but feel a new inspiration, a great desire to be more like him, to work unselfishly for others, just as he did, and to aid as much as we can in carrying on the work so nobly begun.

Dr. Hill's administration of the highest educational office of the state was characterized by indefatigable application, purity of motive, and a keen appreciation of the educational needs of the commonwealth. The governor in his message, referring to the death of Dr. Hill, said:

The educational interests of Massachusetts have suffered a great loss in the death of Frank A. Hill, who had for nine years been the devoted and efficient secretary of the State Board of Education. He served the state unselfishly, recognizing that in education is to be found the guaranty of the material and moral interests of our people.

His annual reports were all valuable contributions to contemporary educational literature. He was instrumental in securing the passage by the legislature of many acts in the interest of the schools. Among these was the act requiring school committees to furnish schools with national flags; the act to require towns to pay the tuition of children attending school outside the town in which they reside; the act to enlarge the power of taking land for schoolhouses; the act to strengthen the truancy law; the act to make compulsory upon every city and town in the state the law for superintendents of schools; the act to strengthen the law against work by minors in factories; the act creating a commission to consider the broad question of the support of public schools. In many other ways he showed his grasp of the educational needs of the day and his appreciation of the rights due the children of a free and enlightened commonwealth.

But with all the demands made upon him in his varied offices as teacher and executive, Dr. Hill found time and pleasure in distinctive literary work. For several years he was a contributor of articles to the *Congregationalist* under the head of "For Young People of All Ages." He edited the revised series of Holmes' readers, and adapted John Fiske's *Civil Government* and *United States History* to school use.

He was in constant demand as a public lecturer, and in this field alone his success was marked. His lectures were uniformly received with favor by the public, and were characterized by grace of diction as well as thoughtful and convincing argument. The best-known of these were "The Mound-Builders," "New England Primer Days," "Seven Lamps for the Teacher's Way," and "How Far the Public High School is a Just Charge upon the Public Treasury." The last lecture has been termed one of the best expositions that the country has produced of the principles on which our public-school system is based.

In 1894 his *alma mater* conferred upon him the honorary degree of Litt.D. in recognition of his distinguished services as an educator.

Dr Hill held many important offices in educational and other associations. His election to these positions shows the estimation in which he was held by his professional brethren and his social acquaintances. He served as president of the Worcester County Teachers' Association, the Massachusetts State Teachers' Association, and the Massachusetts High and Classical Teachers' Association. He was for two years president of the Massachusetts Schoolmasters' Club, a very large and influential organization of New England educators, and for one year president of the Cambridge Club, an association of many of the leading citizens of Cambridge, Mass. He was *ex officio* one of the two commissioners of the Massachusetts School Fund, a trustee of the Boston Museum of Fine Arts, and a trustee of the State Agricultural College. He was a member of the corporation of the Massachusetts Institute of Technology, and was appointed a member of the Schools Examination Board of Harvard University in 1903. In 1901 he was appointed chairman of the Committee of Eleven on the Organization of Contemporary Educational Experience by the Department of Superintendence of the National Educational Association, and held that position when he was taken with his last illness.

In his home Dr. Hill was what one would expect from seeing him in his relations to the world at large. He was ever the considerate, loving husband, the sympathetic, helpful father; a man esteemed and loved by all who knew him, with a life fruitful in ennobling work his memory will be cherished as the best type of teacher.

Reuben S. Bingham

FRANK B. COOPER, SUPERINTENDENT OF SCHOOLS, SEATTLE., WASH.

Reuben S. Bingham was born November 5, 1836, on a farm near Floyd, Oneida county, N. Y., and died at San Francisco, Cal., March 10, 1903, from paralysis of the heart.

Mr. Bingham graduated from Hamilton College, New York, in the class of 1860, and later from the law school of that institution. Instead of entering upon the practice of law, he chose teaching as his profession, and was appointed to the chair of Greek and Latin in the State Normal School, Cortland, N. Y., a position he held with credit for several years.

From Cortland, Mr. Bingham removed to Iowa, taking up the work of superintending and teaching. His first work in Iowa was at Marengo, where he began work in 1875. After serving successfully at Marengo for several years, he accepted the superintendency of schools at Cedar Falls, Ia. He resigned his work there in 1887 to take charge of the public schools at Clinton, Ia. He resigned this position the following year to go to the Pacific coast, where he had accepted the chair of Greek and Latin in Puget Sound University.

In 1896 Mr. Bingham again took up the work of supervision, being elected to the superintendency of schools at Tacoma, Wash. He continued in this position until a short time before his death.

Mr. Bingham had been an active member of the National Educational Association for seven years. He had represented Washington as state director, and was a member of the Council at the time of his death.

Mr. Bingham was quiet and unobtrusive in manner, a keen observer, careful in method, and helpful in influence. He was regarded thruout his career as an excellent teacher and estimable man.

PRELIMINARY REPORT OF COMMITTEE ON SALARIES, TENURE, AND PENSIONS OF TEACHERS

BY CARROLL D. WRIGHT, CHAIRMAN

The committee appointed "to inquire and report upon the salaries, tenure, of office, and pension provisions of teachers in the public schools of the United States" was not able to get together and organize the work of investigation until late in the fall. With an entire accord as to the lines to be followed in the investigation, plans were quickly agreed upon, and the active work of collection of data was begun at once.

The members of the committee were of the opinion that the investigation to be undertaken should be comprehensive and thoro, so far as salaries are concerned, as to all classes of teachers and as to all localities. It was believed that the salary question could not be thoroly understood or intelligently discussed except upon the basis of comprehensive salary data from the cities, both large and small, from the small towns, and from the ungraded rural schools as well.

It was further apparent that the actual salaries paid could not be fully understood until studied in the light of the schedules determining the salary rates and the rules governing the increase of salaries according to service, or grade, or merit, as the case might be. The promise of the salary schedule must be judged by comparison with the results in the salary pay-roll.

The nature of the fund or appropriation from which teachers' salaries are paid also seemed important, for in certain cases the salaries have been subject to diminution from the fluctuations of other expenditures or from other causes, and special legislation has been deemed necessary to safeguard the interests of the teachers and to maintain the standard of instruction in the schools.

With these points in view to be studied, the investigations of the committee have been carried on to cover the following lines of inquiry:

1. Actual salaries paid in cities and towns of 8,000 or more inhabitants. These are 546 in number.
2. Fixed salary schedules in cities and towns of 8,000 or more inhabitants, wherever such schedules have been adopted. These schedules should, of course, be studied in comparison with actual salaries—the salary roll.
3. Salaries in typical towns of under 8,000 inhabitants.
4. Salaries in typical ungraded rural schools.
5. The nature of the fund or appropriation from which teachers' salaries are paid (i. e., whether a special salary fund, not subject to diminution from the fluctuation of other expenditures, or drawn from a general educational fund).
6. Important incidental facts relating to teachers' salaries.
7. The purchasing power of teachers' salaries in different localities.
8. Tenure of office of teachers.
9. Pensions of teachers.

The investigation of salaries being the basis of the whole inquiry and the most complicated portion of it, the efforts of the committee were first directed toward securing as complete salary data as possible. Along with the salary data, however, material has been gathered bearing upon all the subjects under study.

The inquiries relating to cities and towns of 8,000 or more inhabitants called upon the city superintendents or other officials for the complete salary list for teachers and supervising officers covering the last year, the fixed salary schedule governing salary rates (if such schedule had been adopted), and the other facts in regard to teachers' salary funds, tenure of office, and pensions. The superintendents have for the most part co-operated heartily in the work, and the thanks of the committee are due them for valuable aid.

In answer to the inquiries, up to June 10, out of 546 cities and towns of 8,000 or more inhabitants, 85 per cent., representing 89,000 teachers, had responded with a portion of the desired data in some form. Two-thirds of the whole number had reported the complete details in regard to salaries paid. Only 15 per cent. (eighty cities) had failed to reply to the request for information, and it is believed that reports will ultimately be obtained from at least one-half of this number. These cities, it may be remarked, had in 1900 a population of over 25,000,000—one-third of the population of the whole country.

The data sought from typical towns of less than 8,000 inhabitants are similar to those sought from the cities and towns of 8,000 or over. Each state superintendent was asked to secure the data from three typical towns or cities of less than 8,000 inhabitants, one of which requires the maximum expenditure for cost of living, one a medium expenditure, and one a minimum expenditure. Each state superintendent was also asked to secure for the committee data from twenty-four ungraded rural schools in his jurisdiction, eight to represent the lowest, eight the medium, and eight the highest yearly salaries paid to teachers of rural schools.

As this information relating to the typical towns and rural schools had to be gathered by the state superintendents by correspondence, the reports have naturally been slower in coming in. Up to the present time, however, reports are in hand from twenty-four states.

Thus far nearly all the work done has been in the direction of collecting data as complete as possible and in making them ready for tabulation. Naturally little has been done upon a final tabulation, and nothing in the way of summarization and analysis of results, as this cannot properly be taken up until a large number of the reports have been studied and carefully compared.

Some brief tables will here be given as indicating the character of some of the tables in regard to yearly salaries which the report of the committee will present, covering all cities and towns of 8,000 or more inhabitants from which complete salary reports are secured. This number will certainly be over 400, and it is hoped that absolutely complete reports can be secured from as many as 500.

I. NUMBER AND MINIMUM, MAXIMUM, AND AVERAGE YEARLY SALARIES OF PRINCIPALS AND TEACHERS IN HIGH AND ELEMENTARY SCHOOLS AND KINDERGARTENS

(THE POPULATION HERE GIVEN IS THE ESTIMATE OF THE CENSUS BUREAU)

CITY AND POPULATION IN 1903	Number of Teachers and Supervising Officers.	Yearly Salary of Superintendent	HIGH SCHOOLS								ELEMENTARY SCHOOLS								KINDERGARTENS					
			PRINCIPALS				TEACHERS				PRINCIPALS				TEACHERS				DIRECTORS		TEACHERS			
			No.	Min. Yearly Salary	Max. Yearly Salary	Aver. Yearly Salary	No.	Min. Yearly Salary	Max. Yearly Salary	Aver. Yearly Salary	No.	Min. Yearly Salary	Max. Yearly Salary	Aver. Yearly Salary	No.	Min. Yearly Salary	Max. Yearly Salary	Aver. Yearly Salary	No.	Yearly Salary	No.	Min. Yearly Salary	Max. Yearly Salary	Aver. Yearly Salary
St. Louis, Mo., 612,279	M.	....	$5,500	3	$2,304	$3,600	$3,135	54	$1,096	$2,064	$1,405	53	$ 896	$2,304	$1,970	....	....	....	....	..	....	....	....	....	....
	F.	....	....	..	....	....	....	51	600	1,856	1,158	32	728	2,304	1,622	1,262	$ 420	$ 948	$ 654	1	$2,048	228	$272	$780	$449
	T.	1,831	....	3	2,304	3,600	3,135	105	600	2,064	1,285	85	728	2,304	1,839	1,262	420	948	654	1	2,048	228	272	780	449
Boston, Mass., 594,618	M.	....	6,000	11	3,780	4,200	3,818	102	672	3,060	2,406	58	2,700	3,180	3,137	69	1,500	2,460	2,182	..	....	....	....	....	....
	F.	....	....	..	....	....	....	120	500	1,620	1,369	..	....	....	....	1,484	552	1,212	883	1	2,880	166	432	792	657
	T.	2,222	....	11	3,780	4,200	3,818	222	500	3,060	1,846	58	2,700	3,180	3,137	1,553	552	2,460	941	1	2,880	166	432	792	657
Milwaukee, Wis., 312,736	M.	....	6,000	4	2,000	2,500	2,200	37	850	1,300	1,120	41	1,100	1,700	1,574	52	400	900	718	..	....	....	....	....	....
	F.	....	....	..	....	....	....	24	700	1,700	1,040	10	1,000	1,400	1,225	673	400	900	625	..	....	99	450	600	544
	T.	966	....	4	2,000	2,500	2,200	61	700	1,700	1,089	51	1,000	1,700	1,506	725	400	900	632	..	....	99	450	600	544
Detroit, Mich., 309,653	M.	....	4,000	3	2,000	3,000	2,333	34	700	1,755	1,171	20	850	1,800	1,511	1	800	800	800	..	....	....	....	....	....
	F.	....	....	..	....	....	....	71	700	1,400	1,040	50	900	1,700	1,150	731	350	1,000	636	..	....	75	350	750	515
	T.	1,042	....	3	2,000	3,000	2,333	105	700	1,755	1,082	70	850	1,800	1,253	732	350	1,000	636	..	....	75	350	750	515
Washington, D. C., 293,217	M.	....	4,000	5	1,600	1,600	1,600	79	500	1,500	897	20	750	1,500	1,005	31	450	825	544	..	....	....	....	....	....
	F.	....	....	2	1,600	1,600	1,600	112	500	1,500	841	91	675	1,500	978	844	450	1,000	611	1	1,000	76	250	700	398
	T.	1,428	....	7	1,600	1,600	1,600	191	500	1,500	864	111	675	1,500	983	875	450	1,000	609	1	1,000	76	250	700	398
Newark, N. J., 265,394	M.	....	4,500	1	3,500	3,500	3,500	17	1,300	2,200	1,988	36	1,500	2,200	2,017	4	650	1,200	875	..	....	....	....	....	....
	F.	....	....	..	....	....	....	29	900	1,600	1,203	6	850	1,400	1,175	750	450	1,200	710	1	900	90	450	750	656
	T.	959	....	1	3,500	3,500	3,500	46	900	2,200	1,493	42	850	2,200	1,896	754	450	1,200	711	1	900	90	450	750	656
Decatur, Ill., 22,736	M.	....	2,000	1	1,600	1,600	1,600	5	600	1,250	790	3	550	900	742	....	....	....	....	..	....	....	....	....	....
	F.	....	....	..	....	....	....	13	525	775	648	8	600	775	691	59	315	575	466	..	....	....	....	....	....
	T.	93	....	1	1,600	1,600	1,600	18	525	1,250	688	11	550	900	705	59	315	575	466	..	....	....	....	....	....
Anderson, Ind., 23,010	M.	....	2,880	1	1,600	1,600	1,600	9	720	1,000	821	2	675	720	698	2	585	630	608	..	....	....	....	....	....
	F.	....	....	..	....	....	....	4	675	810	720	8	450	720	630	60	360	720	496	..	....	....	....	....	....
	T.	92	....	1	1,600	1,600	1,600	13	675	1,000	790	10	450	720	644	62	360	720	499	..	....	....	....	....	....
East Orange, N. J., 23,972	M.	....	3,900	1	2,900	2,900	2,900	6	1,100	1,800	1,450	6	1,900	2,500	2,267	2	600	725	663	..	....	....	....	....	....
	F.	....	....	..	....	....	....	11	800	1,250	977	..	....	....	....	73	575	800	660	..	....	17	450	675	543
	T.	122	....	1	2,900	2,900	2,900	17	800	1,800	1,144	6	1,900	2,500	2,267	75	575	800	660	..	....	17	450	675	543
Sheboygan, Wis., 24,060	M.	....	....	1	1,400	1,400	1,400	5	650	1,000	800	6	850	1,200	1,067	....	....	....	....	..	....	....	....	....	....
	F.	....	....	..	....	....	....	5	600	800	670	..	....	....	....	63	400	600	458	..	....	21	250	500	381
	T.	111	....	1	1,400	1,400	1,400	10	600	1,000	735	6	850	1,200	1,067	63	400	600	458	..	....	21	250	500	381
Waltham, Mass., 24,912	M.	....	2,200	1	2,000	2,000	2,000	3	900	1,500	1,200	2	1,800	1,800	1,800	....	....	....	....	..	....	....	....	....	....
	F.	....	....	..	....	....	....	11	700	900	818	9	620	680	649	63	500	700	594	..	....	....	....	....	....
	T.	100	....	1	2,000	2,000	2,000	14	700	1,500	900	11	620	1,800	858	63	500	700	594	..	....	....	....	....	....

II. CLASSIFIED YEARLY SALARIES OF TEACHERS (NOT INCLUDING PRINCIPALS) IN HIGH SCHOOLS

City		Teachers Receiving a Yearly Salary of—																					Total Number of Teachers	Average Yearly Salary
		$500 or under	$501 to $550	$551 to $600	$601 to $650	$651 to $700	$701 to $750	$751 to $800	$801 to $850	$851 to $900	$901 to $950	$951 to $1,000	$1,001 to $1,100	$1,101 to $1,200	$1,201 to $1,300	$1,301 to $1,400	$1,401 to $1,500	$1,501 to $1,600	$1,601 to $1,700	$1,701 to $1,800	$1,801 to $1,900	$1,901 to $2,000	$2,001 or over		
St. Louis, Mo.	M.	..	..	..	..	..	..	..	..	..	..	..	2	24	4	7	3	2	1	..	5	..	6	54	$1,405
	F.	..	..	1	..	4	5	2	2	..	..	4	7	..	10	..	5	9	..	..	2	..	..	51	1,158
	T.	..	..	1	..	4	5	2	2	..	..	4	9	24	14	7	8	11	1	..	7	..	6	105	1,285
Boston, Mass.	M.	..	..	..	..	1	..	..	..	..	1	..	..	4	..	2	3	4	4	6	..	5	72	102	2,406
	F.	1	..	..	..	..	..	..	..	..	..	7	12	22	2	2	27	8	38	..	..	..	..	120	1,369
	T.	1	..	..	..	1	..	..	..	..	1	7	12	26	2	4	30	12	42	6	..	5	72	222	1,846
Milwaukee, Wis.	M.	..	..	..	..	..	..	..	2	14	..	3	..	6	4	..	3	2	2	..	..	..	..	37	1,120
	F.	..	..	..	..	1	1	1	..	2	..	8	3	6	2	..	..	..	..	..	..	..	..	24	1,040
	T.	..	..	..	..	1	1	1	2	16	..	11	4	12	6	..	3	2	2	..	..	..	..	61	1,089
Detroit, Mich.	M.	..	..	..	..	2	1	..	..	2	..	2	10	8	..	..	7	1	..	1	..	..	..	34	1,171
	F.	..	..	..	..	2	1	1	1	2	9	2	42	8	..	3	..	..	..	..	..	..	..	71	1,040
	T.	..	..	..	..	4	2	1	1	4	9	4	52	16	..	3	7	1	..	1	..	..	..	105	1,082
Washington, D.C.	M.	5	1	5	4	5	3	6	10	5	6	13	..	12	1	..	3	..	..	..	..	..	..	79	897
	F.	2	4	9	10	4	9	13	14	12	5	21	1	7	..	..	1	..	..	..	..	..	..	112	841
	T.	7	5	14	14	9	12	19	24	17	11	34	1	19	1	..	4	..	..	..	..	..	..	191	864
Newark, N. J.	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	1	..	4	9	17	1,988
	F.	..	..	..	..	..	..	..	..	1	..	2	2	21	..	1	..	2	..	..	..	..	..	29	1,203
	T.	..	..	..	..	..	..	..	..	1	..	2	2	21	1	2	..	3	..	1	..	4	9	46	1,493

III. CLASSIFIED YEARLY SALARIES OF PRINCIPALS OF ELEMENTARY SCHOOLS

City		Principals Receiving a Yearly Salary of—																	Total Number of Principals	Average Yearly Salary
		$700 or under	$701 to $750	$751 to $800	$801 to $850	$851 to $900	$901 to $950	$951 to $1,000	$1,001 to $1,100	$1,101 to $1,200	$1,201 to $1,300	$1,301 to $1,400	$1,401 to $1,500	$1,501 to $1,600	$1,601 to $1,700	$1,701 to $1,800	$1,801 to $1,900	$1,901 to $2,000	$2,001 or over		
St. Louis, Mo.	M.	..	..	..	..	1	1	1	..	1	4	1	..	3	1	..	5	4	31	53	$1,970
	F.	..	1	1	..	1	..	..	..	1	6	3	1	..	5	2	..	4	7	32	1,622
	T.	..	1	1	..	2	1	1	..	2	10	4	1	3	6	2	5	8	38	85	1,839
Boston, Mass.	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	58	58	3,137
	F.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	....
	T.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	58	58	3,137
Milwaukee, Wis.	M.	..	..	..	..	..	..	..	1	2	7	2	..	1	28	..	..	..	..	41	1,574
	F.	..	..	..	..	..	..	1	2	1	5	1	..	..	..	..	..	..	..	10	1,225
	T.	..	..	..	..	..	..	1	3	3	12	3	..	1	28	..	..	..	..	51	1,506
Detroit, Mich.	M.	..	..	..	..	2	..	..	..	2	3	..	3	1	1	8	..	..	..	20	1,511
	F.	..	..	..	8	14	..	..	..	1	20	..	4	2	1	..	..	..	..	50	1,150
	T.	..	..	..	8	16	..	..	..	3	23	..	7	3	2	8	..	..	..	70	1,253
Washington, D. C.	M.	..	1	2	2	1	..	10	1	..	2	..	1	..	..	..	..	..	..	20	1,005
	F.	3	3	1	7	18	..	45	..	10	3	..	1	..	..	..	..	..	..	91	978
	T.	3	4	3	9	19	..	55	1	10	5	..	2	..	..	..	..	..	..	111	983
Newark, N. J.	M.	..	..	..	..	..	..	..	..	..	..	..	4	..	2	2	2	7	19	36	2,017
	F.	..	..	..	1	..	..	..	..	4	..	1	..	..	..	..	..	..	..	6	1,175
	T.	..	..	..	1	..	..	..	..	4	..	1	4	..	2	2	2	7	19	42	1,896

IV. CLASSIFIED YEARLY SALARIES OF TEACHERS IN ELEMENTARY SCHOOLS

City		Teachers Receiving a Yearly Salary of—																		Total Number of Teachers	Average Yearly Salary
		$350 or under	$351 to $400	$401 to $450	$451 to $500	$501 to $550	$551 to $600	$601 to $650	$651 to $700	$701 to $750	$751 to $800	$801 to $850	$851 to $900	$901 to $950	$951 to $1,000	$1,001 to $1,100	$1,101 to $1,200	$1,201 to $1,400	$1,401 to $1,600	$1,601 or over		
St. Louis, Mo.	M.	..	..	...	...	...	...	...	...	...	...	..	...	...	..	..	..	..	..	..	....	....
	F.	..	..	61	97	94	86	113	564	12	183	3	5	44	..	..	..	..	..	..	1,262	$ 654
	T.	..	..	61	97	94	86	113	564	12	183	3	5	44	..	..	..	..	..	..	1,262	654
Boston, Mass.	M.	..	..	...	...	...	...	...	...	...	...	..	...	...	..	..	..	..	1	68	69	2,182
	F.	..	..	...	...	...	71	81	101	93	59	84	128	687	6	91	7	76	..	..	1,484	883
	T.	..	..	...	...	...	71	81	101	93	59	84	128	687	6	91	7	76	1	68	1,553	941
Milwaukee, Wis.	M.	..	1	2	3	4	2	10	8	...	5	5	12	...	..	..	..	..	..	..	52	718
	F.	..	2	40	47	45	201	236	53	...	17	1	31	...	..	..	..	..	..	..	673	625
	T.	..	3	42	50	49	203	246	61	...	22	6	43	...	..	..	..	..	..	..	725	632
Detroit, Mich.	M.	..	..	...	...	...	...	...	...	...	1	..	...	...	..	..	..	..	..	..	1	800
	F.	43	44	39	44	38	47	54	29	352	40	..	...	...	1	..	..	..	..	..	731	636
	T.	43	44	39	44	38	47	54	29	352	41	..	...	...	1	..	..	..	..	..	732	636
Washington, D. C.	M.	..	..	8	10	7	...	1	2	...	..1	.2	...	...	..	..	..	..	..	..	31	544
	F.	..	..	119	169	138	3	123	128	...	91	66	...	4	3	..	..	..	..	..	844	611
	T.	..	..	127	179	145	3	124	130	...	92	68	...	4	3	..	..	..	..	..	875	609
Newark, N. J.	M.	..	..	...	...	...	...	1	...	...	1	1	...	...	..	..	1	..	..	..	4	875
	F.	..	..	76	4	49	64	60	63	305	11	39	39	1	21	4	14	..	..	..	750	710
	T.	..	..	76	4	49	64	61	63	305	12	40	39	1	21	4	15	..	..	..	754	711

The first table gives for St. Louis, Boston, Milwaukee, Detroit, Washington, and Newark, and also for five cities of about 25,000 inhabitants, the population, the total number of teachers (including supervising officers), the salary of superintendents, and the number, minimum, maximum, and average yearly salary paid to principals and to teachers in high schools, elementary schools, and kindergartens, in each case subdivided to show men and women separately and combined. It should be added that the salaries of supervisors or special teachers of music, drawing, manual training, etc., altho here omitted, will be included in the final report of the committee. The minimum and maximum salaries here shown are the lowest and highest actually upon the pay-roll at the time of the report of the committee, and have no reference to schedule rates of minimum or maximum, which may not at the time in question have been the salary of any individual teacher. In this table only those reported as principals have been tabulated under that name, and all others have been put down as teachers. For example, in Newark sixty-two (one male and sixty-one females) designated as vice-principals have been included with the "teachers" in the table. These sixty-two receive salaries varying from $850 to $1,200, and averaging $984. In Boston the Mechanic Arts High School, and in Washington the Manual Training High School, have been classed with the other high schools. Their salaries are slightly lower than those paid in the other high schools in the same cities.

This table renders easy a general comparison of salaries paid in the classes of positions employing the greatest number of teachers. Considering the six large cities only, it will be seen at a glance that Boston stands at the top in all classes, and Newark second (except as to superintendent's salary), while Washington salaries are lowest. The fact will be noticed that the number of principals of elementary schools in Washington is much larger than in any of the other cities. But if salaries of principals and teachers in elementary schools are averaged together, the relative position of Washington is improved little, if at all, as this average, so calcutated, of 986 Washington principals and teachers is $658, while for the next lowest, Detroit, the average of 802 principals and teachers is $690.

It may be desired to study these salaries somewhat more in detail. For this purpose tables have been prepared for the six large cities, classifying the salaries of high-school teachers and elementary-school principals and teachers.

The second table shows, in quite as striking a way as the averages, the differences between the salaries paid in the several cities. In Washington over 40 per cent. of the high-school teachers receive salaries ranging from $500 to $800, while nearly 87 per cent. receive $1,000 or less; in Milwaukee 52.5 per cent. are below the $1,000 line, in Detroit 23.8 per cent., in St. Louis 17.1 per cent.; but in Newark only 6.5 per cent., and in Boston only 4.1 per cent. On the other hand, Boston has 32.4 per cent. receiving over $2,000, Newark has 19.6 per cent., and St. Louis 5.7 per cent. Other interesting comparisons may be made.

A similar table (Table III) shows the salaries of principals of elementary schools classified.

It will be seen from this table that in Washington 83.8 per cent. of the principals of elementary schools receive $1,000 or less per year, in Detroit 34.3 per cent., in St. Louis 7.1 per cent., while in Milwaukee and Newark only one person out of the whole number receives so low a salary, and in Boston the lowest salary paid any principal was $2,700.

The fact that the two cities employing a greater number of women than men in the position of principals pay very much lower average salaries cannot fail to attract attention in this connection. There are without doubt differences in organization affecting salaries which the reports furnished to the Committee have not always made clear.

The salaries of the elementary teachers (not including principals), which are the largest and therefore most important of all the classes of teachers, have also been classified in a table, and the result is shown above (Table IV).

From this table it appears that Washington has 306 teachers, or 35 per cent. of the elementary-school teachers, receiving $500 or less, Detroit 23.2 per cent., Milwaukee 13.1 per cent., St. Louis 12.5 per cent., and Newark 10.6 per cent. Of the Boston teachers the lowest paid are seventy-one in the group receiving $551 to $600. The number of men teachers in the elementary schools is shown to be very small, Boston, Milwaukee, and Washington leading in the order named.

Enough has been given to indicate the completeness which the committee desires and confidently hopes to give to the part of its report which relates to salaries. Effort will be made to study the reports which have been received, and, so far as an understanding of conditions is possible, only those facts will be brought into comparison which can properly be compared because of similarity of conditions. The data will be summarized to bring out most clearly the significance of the facts—and all the facts.

The large amount of material relating to the other subjects referred to the committee, which has been collected at the same time with the salary data, will be studied, and the results will be fully presented. But, being based so largely upon the salary question, they naturally give precedence to it.

It is confidently hoped that the completed report will be submitted during the coming fall.

Respectfully submitted on behalf of the committee,

CARROLL D. WRIGHT, *Chairman.*

COMMITTEE ON SALARIES, TENURE, AND PENSIONS OF TEACHERS

CARROLL D. WRIGHT, U. S. Commissioner of Labor, Washington, D. C., *chairman.*
EDWIN G. COOLEY, superintendent of schools, Chicago, Ill.
FRANKLIN H. GIDDINGS, professor of sociology, Columbia University, New York, N.Y.
MISS CATHARINE GOGGIN, teacher in city schools, Chicago, Ill.
R. H. HALSEY, principal of State Normal School, Oshkosh, Wis.
WILLIAM MCANDREW, principal of Girls' Technical High School, New York, N. Y.
MISS ANNA TOLMAN SMITH, U. S. Bureau of Education, Washington, D. C.

DEPARTMENTS OF KINDERGARTEN AND ELEMENTARY EDUCATION

SECRETARIES' MINUTES

JOINT SESSION.—TUESDAY, JUNE 28, 1904

The Departments of Kindergarten and Elementary Education met in joint session in the Hall of Congresses at 2:36 P. M. Miss Jenny B. Merrill, president of the Kindergarten Department, and Miss Ada Van Stone Harris, president of the Elementary Department, alternated in announcing the speakers.

The program for the session was as follows:

Addresses of welcome: Miss Mary C. McCulloch, supervisor of kindergartens, St. Louis, Mo.; Miss Fannie L. Lachmund, supervisor of primary instruction, St. Louis, Mo.

1. *Topic:* "The relation of the Kindergarten and Elementary School as Shown in Their Exhibits."

a) "From the Kindergarten Standpoint," by Miss Patty S. Hill, principal of Kindergarten Training School, Louisville, Ky.

b) "From the Standpoint of the School," by Charles B. Gilbert, New York city.

Discussion by A. Caswell Ellis, professor of science and art of education, University of Texas, Austin, Tex.

2. "The Philippine Teacher and the Philippine Educational Exhibit," by Albert Ralph Hager, chief of the Department of Education of the Philippine Exhibit, Manila, P. I.

3. "The Kindergarten in Japan," by Miss Anna L. Howe (recently of Kobe, Japan), associate principal Chicago Froebel Association, Kelly Hall, University of Chicago, Chicago, Ill.

4. "Elementary Education in France and Germany," by F. E. Farrington, professor of pedagogy, University of California, Berkeley, Cal.

5. "The Kindergarten in the Southern States, in Mexico, and in South America," by Miss Eveline A. Waldo, principal of St. Mary's Parish Kindergarten Training School, New Orleans, La.

On motion of Miss Mary C. McCulloch, the president of the Kindergarten Department was authorized to appoint the usual committees for that department.

COMMITTEE ON NOMINATIONS

Miss Mary C. McCulloch, St. Louis, Mo. Miss May Murray, Springfield, Mass.
Miss Eveline A. Waldo, New Orleans, La.

COMMITTEE ON RESOLUTIONS

Miss Anna Harvey, Brooklyn, N. Y. Miss Susan Pollock, Washington, D. C.
Miss Alice Temple, Chicago, Ill.

On motion of Mrs. Francis Lachmund, the president of the Elementary Department was authorized to appoint the usual department committees.

COMMITTEE ON NOMINATIONS

R. H. Halsey, Oshkosh, Wis. Mrs. Fannie Lachmund, St. Louis, Mo.
Miss Rosalie Pollock, Salt Lake City, Utah

COMMITTEE ON RESOLUTIONS

J. D. Burks, Paterson, N. J. Miss Nettie Sawyer, Seattle, Wash.
George W. Phillips, Scranton, Pa.

KINDERGARTEN DEPARTMENT

SECOND SESSION.—FRIDAY, JULY 1

The Department of Kindergarten Education met in the Hall of Congresses, and was called to order by the president, Dr. Jenny B. Merrill, at 2:30 P. M.

Greetings from Austria were presented by Madame Ottelia Bondy, founder of the Association for Kindergarten and Infant Asylums in Austria.

Miss McCulloch supervisor of St. Louis kindergartens, responded to Madam Bondy's address, expressing the appreciation of the members of the department for the cordial greeting from co-workers in a foreign country, and in the name of the Kindergarten Department of the National Educational Association intrusted to Madam Bondy a message of good wishes for continued success of the kindergarten movement in her native land.

William H. Burnham, professor of pedagogy, Clark University, Worcester, Mass., read a paper on "The Physical Care of the Kindergarten Child.

Miss Bertha Payne, head of the Kindergarten Department of the University of Chicago, presented the topic "The Individual Child."

Miss Mary Jean Miller, Marshalltown, Ia., read a paper on "What is Kindergarten Discipline?"

The discussion was led by Miss Elizabeth Harrison, principal of kindergarten, Chicago Kindergarten College, followed by Miss Lawson, Miss Merrill, and Miss Waldo.

Miss Anna E. Harvey, professor of kindergarten methods, Adelphi College, Brooklyn, N. Y., read a paper entitled "The Value of Pet Animals in the Kindergarten."

The Committee on Resolutions presented a report which was adopted.

The Committee on Nominations presented the following nominees for officers:

For *President*—Miss Anna M. Stovall, San Francisco, Cal.
For *Vice-President*—Miss Mary Jean Miller, Marshalltown, Ia.
For *Secretary*—Miss Anna E. Harbough, St. Louis, Mo.

The report of the committee was adopted, and the nominees were declared elected as officers of the department for the ensuing year.

In the absence of the newly elected president, Dr. Merrill presented the department gavel to the vice-president, Miss Mary Jean Miller, who accepted it with expression of appreciation for the honor conferred.

Upon motion, the department adjourned.

ORIETTA S. CHITTENDEN, *Secretary*.

ELEMENTARY DEPARTMENT

SECOND SESSION.—THURSDAY, JUNE 30

The president, Miss Ada Van Stone Harris, called the meeting to order at 2:45 P. M. in the Hall of Congresses.

The program was as follows:

1. "The Natural Activities of Children as Determining the Industries in Early Education," by Miss Katharine E. Dopp, instructor in Extension Division, University of Chicago; G. Stanley Hall, president of Clark University; L. D. Harvey, superintendent of city schools, Menomonie, Wis.

2. "A Filipino's View of Education in the Philippines," by Senorita Maria del Pilar Zamora, instructor in Insular Normal School, Manila, P. I.

3. "Avenues of Language-Expression in the Elementary School," by Percival Chubb, director of English Ethical Culture School, New York city; Miss Della Justine Long, student in education, University of Chicago; F. W. Cooley, superintendent of schools, Evansville, Ind.

The Committee on Nominations reported as follows:

For *President*—Miss Nebraska Cropsey, Indianapolis, Ind.
For *Vice-President*—J. H. Van Sickle, Baltimore, Md.
For *Secretary*—Miss Lida B. Earhart, Whitewater, Wis.

The persons nominated were unanimously elected officers of the department for the ensuing year.

The following resolutions were reported by the committee and adopted.

The members of the Department of Elementary Education, assembled at the forty-third convention of the National Educational Association, unite in the following:

RESOLUTIONS

1. That the close sympathy and co-operation existing between this department and the Department of Kindergarten Education is of distinct common advantage to the two departments, and should be continued and strengthened.

2. That means should be taken to enlist the active interest of a greater number of superintendents, supervisors, and students of elementary education than are now associated with this department.

3. That this department recommend to the general officers of the National Educational Association that steps be taken looking toward a closer co-ordination of the educational forces of the United States by means of definitely established relations between the National Educational Association, the United States Bureau of Education, the teachers' associations of the several states, and other societies and associations having as their purpose the study and discussion of educational problems.

4. That the thanks of the department be heartily extended to those who have presented the papers constituting a program of unusual interest and profit; to the officers of the departments for this effective service; to the officers of the National Educational Association for their support and for the excellent program of the general sessions; to the teachers and citizens of St. Louis for their charming hospitality; and to the management of the Louisiana Purchase Exposition for the generous courtesy and recognition accorded to members of the Association.

JESSE D. BURKS, *Chairman.*
NETTIE A. SAWYER.
GEORGE W. PHILLIPS.

The department then adjourned.

EMMA G. OLMSTEAD, *Secretary.*

PAPERS AND DISCUSSIONS

JOINT SESSION OF KINDERGARTEN AND ELEMENTARY DEPARTMENTS

ADDRESS OF WELCOME

MRS. FANNIE LACHMUND, SUPERINTENDENT OF PRIMARY INSTRUCTION, ST. LOUIS, MO.

As one who is clearly conscious of the need of greater unification of the various branches of our educational system, I feel I have especial reason to welcome the kindergarten and elementary teachers in joint session; and as an elementary teacher I am happy to welcome the kindergarten teachers as a group to whom we are especially indebted for light and help. Years ago I had to confess to a feeling of envy of the enthusiasm that sustained the kindergarten teacher. It was evident that, to make her capable of that per-

petual glow that was characteristic of every worker whom it had been my privilege to meet, she must possess something that I had missed. It was not long before I found that the difference between her and myself lay in the fact that her work was based on more deeply fundamental principles than mine; that, while I might enjoy the teaching of arithmetic or history or literature as an end in itself, the kindergarten teacher had been taught to look beyond her work and the perfection of her external result, for its effect on the child not merely as an intellect, but on the child as a soul. Her work led her to a view of life in its totality, and mine did not.

I am happy to see that, as the years have gone by, there is no longer that wide chasm between the two branches in the work, and that we primary teachers are beginning, at least, to understand and appreciate the spirit behind the terminology of the kindergarten; that the phrases "self-activity," "self-realization," "the child as a social being," have come to be helpfully suggestive to us also And so I welcome the kindergarten teachers as a group whose basic principles and whose example have helped to enlarge our vision and liberalize our methods.

With the vital acceptance of Froebel's ideal of the supremacy of soul there has come to all of us, kindergarten and elementary teachers alike, a new view of the significence both of knowledge and of work; we can no longer put value upon knowledge isolated from him who knows, or upon work unrelated to the worker. Knowledge has real value only when the child sees the necessity for it; work is educative only when it is a genuine expression of him who performs it; work done wholly at dictation or with a forced perfection does not promote life; therefore society and the individual are the losers by the performance.

In many places we are teaching the "three R's" better than ever before If these were to remain an end in themselves, I should fear that we had reached the limit of possible progress. But the constructive work in the educational exhibits from all over the world is proof that educators have awakened to a sense of need of something beyond. Basketry and weaving are so prevalent that teachers are now quite likely to take up the work simply because others have done so. The immediate problem of the present, one that of all educational problems concerns us elementary teachers most vitally, is not methods of teaching this, that, or the other branch of our course of study, but to find the right relation between the mind of the child and the various studies we are now attempting to teach; the right motive for the child in the picture he is to paint, the basket or rug he is to weave; and, further, in order to preserve the unity of the child's consciousness, to see the relation of all these things to each other and to the "three R's". If we fail to recognize this problem, our nature study will degenerate into mere sense-training, and our constructive work into mere training for manual skill. In the measure in which the problem is high and difficult we have reason to congratulate ourselves that it is set for us to solve.

The new social ideal applies to us as well as to our pupils; we can no longer

rest content to be tools or factory operatives. The ideal imposes upon us the duty of thought and study, and freedom from prejudice. When we cease to work blindly from dictation, but work from a clear light within, we shall attain for ourselves and for our pupils what Ruskin and Morris, latter-day apostles of this ideal, demand for every worker in the world—true freedom, joy in our work, and a consequent fullness of life.

THE KINDERGARTEN AND THE ELEMENTARY SCHOOL AS ILLUSTRATED IN THEIR EXHIBITS

I. FROM THE KINDERGARTEN STANDPOINT

MISS PATTY S. HILL, SUPERINTENDENT OF FREE KINDERGARTEN TRAINING SCHOOLS, LOUISVILLE, KY.

One can but be impressed with the similarity in the results exhibited from kindergartens and lower grades. We are tempted to criticise this until we read the grade child's account of what he has done and find that, tho the manual products are similar, the intellectual content in each case is entirely different. For example, we find simple cardboard and wooden boxes and trays in exhibits, all the way from the kindergarten thru the grades, their educational value in each grade depending upon the degrees of work done by and for the child, the amount of originality, preparations of raw material, conscious measurements, etc. For example, here is a written record accompanying a simple cardboard tray, with careful drawings of the same, made by a fourth-grade child. She writes:

> I have made this cardboard tray in school. The material was seven inches square when I cut it, which made forty-nine square inches. I had to use very careful measurements to get it exact, because it is very expensive material and we have to try not to waste it. When we fold it the bottom is three inches square and one inch deep, and it contains nine cubic inches. We had to score some lines to turn it over to make it the shape of a box. Its color is green, and it looks very pretty. I am going to use it to put my hair ribbons in. They will just about fit in the box, if I fold them carefully, and it is going to come very handy to me.

If the kindergarten child had made this same object, the conscious measurement would have been thought out by the teacher. She would have prepared the material and thought out the completed object, the kindergarten child probably originating the method of securing this result with the carefully prepared materials placed before him.

The prepared material often hints and suggests processes of construction to the kindergarten child. At first glance, this seems limiting to the creativity and originality of the kindergarten child, but a deeper study convinces one that even the discovery of processes of making objects which were planned by the teacher demands some degree of ingenuity and originality from a little

child. For the sake of convenience in discussion, let us analyze the processes in the production of an object, whether in the kindergarten or the grades, into these five steps:

1. "The what;" that is, the idea, image, or interest to be expressed, or the object to be constructed.

2. A general survey of "the how;" that is, a series of vague plans with different kinds of materials, to see how the idea as a whole could be expressed or the object be constructed.

3. What kinds of material will be best to carry out this general plan.

4. "The how" in detail—as to each part, or step, or process, necessary to execute the general plan with materials selected. In other words, what is to be done with or to this material to make it carry out the general plan—how must this material be modified, folded, cut, pasted, glued, sewed, nailed, sawed, etc., in order to make it conform to the general conception or plan.

5. The product, result, or completed expression or construction.

From the theoretical view-point the ideal would be to have all five of these emanate creatively from the child, but practical experience tends to prove that this depends upon the age and stage of development reached by the child.

In the rebound from the slavery and mechanical methods used in the old education, the tendency seems to be to overestimate the value and degree of creativity and originality in early education, and to undervalue spontaneous imitations. This is a difficult position to express, because many times we fail to grasp the originality that accompanies spontaneous imitation.

The study of evolution, the period of prolonged infancy and social-heredity, seems to point toward the tremendous part played by imitation in evolution, especially in early life. True, originality and invention are important elements, even in early life and education; but they seem to grow more and more valuable after the child has absorbed varied patterns set by adults, which are most important to him and his kind. Nature cannot wait for the child to originate or discover all of them, so she sets patterns in the concrete activities of adults, which are so inviting that the child is driven by spontaneous imitation to repeat them. And so he is busy in making the past his, both by imitation and rediscovery, tho imitation seems to predominate in early life. Truly, imitation and invention are the two legs upon which both the child and the race have walked in reaching the best that the race has accomplished in the past, as well as in discovering greater and better things for the future. Early life is enriched by the absorption of these varied patterns thru imitation, and later this furnishes a fine basis for that selection and recombination of elements which are necessary for invention and creation. If this be true, we should try to strike a sane balance between imitation and invention in the industrial work in early education.

Let us examine each of these five processes in production, and endeavor to discover what degrees of imitation and originality can, or ought to, enter in at the kindergarten age.

When we study the first—that is "the what," the idea, or image to be expressed, the object to be made or constructed—these are some of the prob-

lems which confront us: Is the idea or image a fundamental interest of the child at the kindergarten age? Is "the what" of sufficient worth, from the child's point of view, to call out his self-activity? Is the function of the object of sufficient importance in child-life to call forth his best effort in overcoming any difficulties which may arise in its construction?

Expression and production in the kindergarten should center in those interests which are characteristic of this stage of growth. The life of the child—his experiences and environments, his interests and ideals—should be sifted, and those which promote his growth and call out his best powers along lines of greatest worth, both to the child and society, should be selected.

This the teacher, in close sympathy with the child and thoroly trained in genetic psychology and child study, should know better than the child himself. The teacher who trains herself to watch the school activities from the viewpoint of the child often knows better than the child what his real interests and desires are. For example, if you offer a detailed toy, with little left to the imagination, and poor opportunities for self-activity, most children will choose it in preference to a meager toy, rich in hidden possibilities. But any close student of children will choose differently for the child, and know she is appealing to deeper desires and interests than those of which the child himself is conscious.

But for fear that the teacher who plans what is to be made shall wander too far from what the child considers of worth, and thus dwarf the child's power of initiative, she should have some "free occupations" in which the child is left absolutely free to act upon his own idea of what, make his own plan as to how, and originate his own processes and product. This can be done to advantage in several ways. Sometimes we can lead the children to suggest one day what they would like to make the next. Then get them to suggest how it might be made, and what materials might be used, etc.

The following method has also been tried with some success as to originality in selection of subject, plan, material, steps, and product. All sorts of odds and ends in occupation materials are placed on the table where the children can get them; for example, scraps of paper of different sizes and shapes, milk-bottle tops, nails, scraps of wood, leatherette, etc. The children are told that they may make anything they desire out of these materials. The idea to be expressed, or object made, is often suggested by the materials; for example, milk-bottle tops suggest wheel for wagons, triangular forms in paper suggest houses with pointed roof, etc.

Another point of equal importance regarding the idea or image to be expressed is that the child have a clear, definite image of the subject to be expressed. Unless he has a clear image of what he is to make, of the product he is working toward, he can not be intelligent in either imitating or originating the steps leading toward it.

With regard to processes 1 and 2—the creation of the general plan for expression or construction, and the selection of suitable materials for this –

there is little doubt that the older children in the kindergarten can do some of this creatively; but I believe that this is more important in the grades than with the child under six years of age. A plan for construction originated by the teacher, provided it is based upon a conscientious study of the interests, activities, and manual skill of the child, should be more frequently used than plans originated by the children.

When we come to process 4—"the how" in detail—we have ample possibilities for the inventive and original powers of the kindergarten child. After the kindergartner has planned a childlike occupation and the materials for construction, the average kindergarten child should be largely thrown upon his own inventive and creative power in originating his own method of construction. Most of us learn how to make objects either from watching someone else while going thru the processes, or by clues gained from the study of the completed object. Either of these methods seems more intelligent and more natural than the method of dictating which has crept into the kindergarten and been used to the detriment both of the child's spontaneous instinct for learning how by imitation, and his ability to create the *how* for himself, if he can get hints and clues from a product of like nature.

The educational value of a production lies largely in the processes. Some of the most important educational problems regarding the processes of production at the kindergarten age are these: (*a*) Either the processes should be interesting, easy, and pleasant in themselves; or (*b*) if somewhat difficult or monotonous in themselves, the product or result should be attractive, and the processes should be seen as necessary and organic steps toward the completed object. (*c*) The processes should involve either or both intellectual value, or manual and industrial value. That is,if the step is simple in manual dexterity, it may become of great value intellectually, by leading the child to think out and create the step for himself. Again if the process is difficult manually, we may relieve the child intellectually by showing him the *how* of the step. (*d*) In any case, the processes should be intelligent steps executed by the child from a definite image in his own mind both of the step or process and its relation to the end toward which he is working.

One would think this last an unnecessary problem, and that it might be impossible for a child to go thru processes unless he sees them as organic means to an end. But this is unfortunately not so. Many of the older kindergarten occupations are the result of processes in folding or cutting, which are almost impossible for either adult or child to foresee as organic steps toward the end. For this reason, kindergartners resort to a method of dictation which is often a passive means of directing children thru a blind series of folds and cuts, which finally result in some form which may bear a far-fetched resemblance to some thing which child or teacher has seen. [Showing an animal form in a folding series.] Now, of course, this form was originated once by somebody, but hardly from a definite image of the product in mind, with the folds worked out as intelligent steps toward that end. In

other words, the result was accidental on the part of the originator, and tho the processes were experimental, they were not taken as steps toward a definite end, because the end or product was unforeseen. As purely experimental work—that is, in trying a certain process to see what will result—this method has value, but it has something of the element of the prize-box, which is not good as a steady educational diet in early industrial training.

Most of Froebel's occupations are in th flat, and many newer occupations called constructive, because they have three dimensions, are creeping into the kindergarten.

I believe that the new occupations have these points of superiority over those in the flat:

1. Because all three of the dimensions of objects are represented, they are more concrete than picture representations. As children at kindergarten period are quite concrete-minded, this is an advantage.

2. The steps or processes in the constructive occupations are so self-evident as organic means to end that the child can either imitate or originate them more intelligently than in the earlier flat occupations. In many of these flat occupations "the how," or processes of making, is so hidden, so disguised, as an organic step leading toward a certain end, that kindergartners have had to fall back on the method of dictation, which the child often blindly follows; and when the unforeseen result is accomplished, the child is allowed to name it according to some resemblance he discovers. Now, Dr. Dewey tells us that when the child is dependent upon the dictation of another, it is because he has no image of his own from which he is working.

3. These constructive occupations are not only interesting in processes of making, but the results are so real and so tangible that they serve a double purpose as toys or objects of utility when completed. The flat occupations when completed can serve only as pictures, at best. One of the most frequent criticisms of these new occupations is that they are lacking in æsthetic value. This criticism is due to two causes. In the first place, it is due to judging of the æsthetic from the adult's point of view rather than the child's; they are often beautiful to the child when unæsthetic to us. In the second place, kindergartners are prone to limit the æsthetic to those endless series of "beauty forms" planned in the early history of the kindergarten. Some of these are beautiful, and have an important place in the kindergarten; but many of them, from the art standpoint, are as unæsthetic as the crudest constructive occupations. All the good work in free painting, modeling, and music, which are legitimately used in the kindergarten, cannot be overestimated æsthetically, and the continual use of conventional beauty forms is often used at the cost of these freer art expressions.

Froebel's occupations have some points of superiority over the newer ones, which must be considered. For example, they have a sequence in the processes which is most valuable, in spite of the fact that they often involve blind steps, whether given to the child by imitation or dictation. This sequence

in processes is good because each step is repeated with a new one added; hence the child secures manual skill gradually, and repeats the processes until they are absolutely at his command, even when most unintelligently used. The newer constructive occupations are lacking in this gradual and progressive development, tho they are improving in this from year to year. This sequence in materials and processes has been slavishly followed by kindergartners, and that which should have been only an attempt to increase gradually the child's manual dexterity has become an object of symbolic worship, in and for itself. While the constructive occupations are lacking in this orderly sequence, they are so childlike and interesting, both in processes and product, that the child readily adapts himself to the uneven difficulties which they present as a result of what they lack in sequence.

Nevertheless, we need a more definitely planned series of constructive occupations, adapted to a more gradual development in manual skill. While this is undoubtedly true, it is also equally true that most attempts to meet the child's need of gradual manual development in sequences and series of carefully planned manual steps almost invariably sacrifice the child's psychological interests. Surely there ought to be some happy compromise, where neither the psychological interests nor the gradual development of industrial skill is sacrificed. If we read over a list of objects constructed in some of Froebel's sequences, we can but be impressed with the unchildlike series of objects made, in order to secure a sequence in moves, which to Froebel had a deep symbolic meaning. For example, here is a list of unchildlike subjects illustrated in a sequence play with the third gift: (11) stronghold, (12) wall, (13) high wall, (14) two columns, (15) column with two memorial stones, (16) sign-post, (17) cross, (18) two crosses, (19) cross on a pedestal, (20) monument, (23) triumphal arch.

The materials for industrial work in the kindergarten and lower grades are quite alike, but as the grades progress the materials should provide for the construction of objects more artistic, more accurate, and more finished, involving the use of tools, which will make these more æsthetic and perfect results possible. In kindergarten and lower grades few tools should be needed, the hand being the chief instrument for production. Scissors, paint-brushes, coarse needles, and hammers (with an occasional use of the miter-box and saw and large looms with the oldest children) are surely enough for the little children to handle. We should not introduce tools until the child feels the limitations of the hand and the advantage of the tool.

Finally, as to completed occupation, it should fulfill these requirements. (*a*) It should be of worth from the child's point of view as well as from that of the kindergartner. In other words, it should be of value to the child in his own life; for example, as a toy; or (*b*) it should be of value socially; that is, of use or service to the group to which the child himself belongs, or as a gift to another, to whom it will be of value. (*c*) The product must be felt as æsthetically or industrially good; that is, it must be beautiful or useful to the child

himself; or, if made for others, it seems fair to help the child to consider what would be useful or beautiful to the recipient.

To sum up in short comparison:

KINDERGARTEN AND FIRST GRADE	HIGHER PRIMARY AND ELEMENTARY
I	I
The processes of an occupation should not be tedious, and the product should be quickly gained, usually in one (and never more than two or three) periods.	The result may be more remote, and the steps may be longer and more monotonous; for example, textile work and basketry.
II	II
The result should be crude and large, involving use of large, fundamental muscles, with little emphasis laid upon exactness and accuracy.	The result may be more finished and æsthetic, with greater emphasis laid upon neatness, accuracy, and finish. Smaller muscles may be called into use.
III	III
There should be more imitation than invention; that is, most of the planning of "the what" done by the teacher, the child originating "the how."	More invention and originality in planning both "the what" and "the how."
IV	IV
Materials large and coarse and easily managed, so the immature powers of child can easily modify them. Most of the materials prepared by the teacher and made more suggestive to child in the form presented.	Materials finer and more æsthetic. Raw material presented to the child, calling for more highly developed constructive imagination, because the material is less suggestive in form presented to child.
V	V
Kindergarten children should do little measuring. Only the oldest children should prepare their own materials, and then from a completed object of like nature.	Grade children should learn to prepare raw material, and not only make it conform to exact measurements given by the teacher, but to those worked out by the child in a drawing, previous to the construction of object.

II. FROM THE STANDPOINT OF THE SCHOOL

C. B. GILBERT, NEW YORK CITY

The great antagonisms of history are sources of astonishment afterward. No one can understand now the exceedingly bitter religious contests of the past, and in the future it will be equally surprising that the kindergarten and primary schools should have occupied militant camps and waged for years a most delicate and ladylike, but none the less intense, warfare. But we must all remember that there is no possession so precious as a wrong idea. Men who have been for years following wrong theories of life regard these theories as sacred and will fight for them against the right with all conceivable energy. The newer theories which are at the base of what is known as the new education are so simple, so easily comprehended, and so sensible that we wonder that they should ever have been disputed.

Froebel did not consciously establish an institution. He advocated a principle and embodied a spirit. He had no thought of the kindergarten as separate and distinct from the school; he was advocating a new kind of school, and the new kind of school has come. The best primary school of our cities is today as truly a child of Froebel's theories as is the kindergarten, and in some cases it must be admitted it more nearly represents his spirit; for when the beauty and worth of the fundamental educational notions of Froebel began to come into force in the elementary school, they spread with wonderful rapidity. They were taken up by a class of people who were accustomed to think closely on educational lines, and who were, moreover, unhampered by the idea of belonging to an institution. They were simply the exponents of a doctrine and the followers of a spirit, while the kindergartners, it must be admitted, have been somewhat hampered by their notion that they are not simply the defenders of the faith, but the militant supporters of an institution. There is always danger that the institution shall cramp the spirit. Hence persecutions of all kinds have been maintained by institutions and have been in defense of institutions.

Thus a new element has got in which somewhat hinders the universal harmonizing of the kindergarten and the primary school. This is especially true in some places where the kindergarten still puts undue emphasis upon its tools, still insists that the form of the kindergarten material is sacred, and fails to see how the doctrines of Froebel can be carried out in any way other than that laid down in the books. So, while the elementary school has broken away from the sphere, cube, and cylinder notion of education, the kindergarten too frequently has clung to it and insists that the forms of certain wooden blocks are as sacred as a Russian icon; that is, they have become in their turn the defenders of orthodoxy as against the heretical primary teacher.

This, however, is but a passing and local phase, and is sure to disappear in time. The pathetic clinging to the methods of the past is always interesting, but is sure to be shortlived, and it is beyond question still true that in the great majority of cases the primary school still lags far behind the kindergarten in its manifestations of the spirit of Froebel.

Now, what is the basis of proper harmony between the kindergarten and the primary school; how does it manifest itself; and how may it be built upon by the teacher?

We will take for granted that the spirit of love, the spirit of freedom, and the spirit of activity directed from within control the primary school and the kindergarten. What are some of the ways in which the actual harmony may make itself manifest?

1. The spirit of freedom of which I have spoken will so manifest itself that the children who pass from the kindergarten to the primary school will not feel a shock due to sudden unwonted restriction. In the kindergarten they have been accustomed to much liberty of movement and to much freedom of expression thru the various means there provided. In a good primary

school there will still be much liberty of movement; there will not be the prohibitions of the old-fashioned school against all communication or movement without permission, nor the command to speak only when spoken to. The children will still be manifestly the central objects of interest and study in the school, as they have been in the kindergarten; their individual wants will be protected, their individual peculiarities observed, and the work adapted to their individual needs. That is, the natural differences among children will be recognized, and freedom will be allowed them to develop, without undue restriction, in the way in which they are bound to develop in time. The good child of the kindergarten, who is often the active, alert, inquisitive child, will not become, as has been too often the case in the past, the bad child of the primary school, rebelling constantly against shackles, whose effect is inevitably harm.

In the good kindergarten the children have learned a reasonable degree of self-control and have acquired to quite a considerable degree the power to direct their own acts to definite ends. This is not lost when they go to the good primary school; it is only in the poor primary school that for this power of self-direction is substituted implicit and unquestioning obedience to commands and unresisting compliance with external requirements. Rather, in the good primary school is the reliance upon the individual moral sense increased, and consequently the moral sense grows and the children become more and more capable of doing right from motives within.

2. Possibly the most evident tie between the good kindergarten and the good school is the work done, especially the various forms of manual activity employed in both for educative ends. A visit to the exhibit must convince even the doubting that a continuity of work thru the kindergarten and the primary school is not only quite possible, but has already been effectively maintained in several cities. This is especially noticeable in the exhibits of those cities in which the kindergarten has largely abandoned the purely geometric basis for its manual work, and has substituted constructive and creative exercises for the more restricted and mechanical.

To little children all the objects used in the kindergarten—gifts, occupation material, and what not—are valuable as tools to do things with. A sphere is a ball; cube and cylinder are blocks. The study of esoteric, oriental symbolism, while doubtless a valuable intellectual gymnastic to the mature and full mind which has all knowledge categoried, and hence is free for excursions into mysticism, to the ordinary kindergartner is about as valuable as the study of the orientation of the pyramid of Cheops, and attempts to introduce it consciously and evidently into the instruction of little children are as sensible as trying to see with a microscope "the light that never was on land or sea." Most kindergartners are very sane and very sensible, and so are most primary teachers.

The manual work of both kindergarten and primary school now has a motive; something is to be constructed, some thought is to be portrayed,

some idea to be expressed. The mere exercise is giving place to the work for an end, embodying, but concealing, the same drill. The paper mat, good for nothing when made, and the sewing of conventional designs, meaningless to children, the study of blocks as such in the vain hope of finding a hidden symbol, are disappearing from the kindergarten; while from the primary school the pounding and scratching of slates in copying and manipulating columns of figures without content, the so-called "busy work," that base and profitless substitute for happy idleness, possessing the form of work, but innocent of educational value, the vain worship of sphere, cube, and cylinder, with many another unholy slayer of time—all have fallen into innocuous desuetude, and in their places have come sane and purposeful occupations, educative in their effects because they have always a manifest worthy motive, the expression of thought—the child's thought—thru graphic portrayal or construction. The difference in salutary effect between doing exercises and making things is the difference between the dyspeptic's enforced walk and the enthusiast's game of golf. These changes have already come in the best kindergartens and the best primary schools.

This continuous line of work helps to carry the children without shock or break thru the first years.

Another link is play used educationally. This has always been a strong feature of the kindergarten; indeed, it is a part of its fundamental philosophy. The primary school has been slow in adopting it, and even yet it occupies a very small place in all but the best and most progressive primary schools.

Play is the child's natural mode of expression. Hence nature has indicated as plainly as possible that it should be in the earliest years the chief avenue of instruction. Its power to develop the imagination, its stimulation of physical and mental activities, the relief it affords to dangerous tension, all make it a most fit channel for instruction. The primary teacher is beginning to follow her kindergarten sister in even this. The introduction to the art of reading is often made delightful by the use of the play element. Even arithmetic has found a way to employ it. The newest text-books in this subject make much and very successful use of games for instruction. All this helps to make the transition from the kindergarten to the primary school an easy one for the children.

Thus far I have spoken of means of union that have gained considerable headway, and can be seen and studied. I wish to speak of others that are still in embryo.

One is the material equipment of the primary school.

Another is the training of teachers.

A third is common supervision.

It would be difficult to conceive a device more hostile to freedom of either physical or intellectual activity among children than the modern schoolroom with its rigid equipment. The ordinary school desks, built on the theory of averages and fitting nobody, in which children are obliged to remain quiet

hours at a time, doubtless have served well the depleted treasuries of school boards and the full treasuries of furniture-makers, but they have not served well the cause of education. There is only one kind of primary school that the ordinary school furniture fits; that is, the purely mechanical school in which all the children do all the same things at the same time. The nearer the school is reduced to the condition of an automatic machine, the better fitted is it for the ordinary equipment.

Who does not recall the hours spent in these hard, unyielding, and immovable seats which seemed to press in the wrong way every muscle, every bone, and every nerve in the body? They also seem to have a hardening effect upon the sympathies of the teachers, so that the child who makes manifest his discomfort becomes a sinner above others. One of the common complaints made in the earlier days against the kindergarten children by primary teachers was that they did not sit still well—blessed fruition of kindergarten training, but hard for the mechanical teacher.

You all remember Dr. Dewey's experience in trying to find school desks for his school. After visiting in vain various makers, finally one to whom he in despair described his wants said: "Why, you want a desk to work at; these are all meant for listening."

I am not sure but the child fresh from the kindergarten suffers more thru change from the easily moved chair with its varied positions and the freedom of physical activity allowed to the school desk than from anything else, and this very physical rigidity has transferred itself to the whole spirit of the institution and has resulted in a metaphysical rigidity, bad for teachers and children; so that actually in some of our larger cities the teachers still insist that the instruction of fifty primary children at the same time on the same subject is the best method of instruction. Such has been the demoralizing effect of the unhappy material environment. It is not necessary to have such desks in primary schools. I know whereof I speak, because I have furnished schoolrooms otherwise with very happy effects—large schools, too. The moment the school is broken up into groups, doing different things at the same time, it becomes better to have some kind of furniture more flexible than the ordinary desk. The kindergarten tables with their accompanying chairs are just as suitable for the first grade as they are for the kindergarten. I have seen some very good schoolrooms furnished with a few desks, enough for part of the class to sit in for a short time, the rest of the seating being in chairs and about tables; but it would be very much better to eschew the desks altogether, in the first grade at least, and to have tables and chairs.

This seems a simple recommendation, but practical teachers will find it one of the most difficult to carry out, as they will collide with the prejudices of other teachers, the prejudices of school boards, and the supposed vested interests of furniture manufacturers; but if the change is once made, the problem of school discipline is vastly simplified, and the introduction of the spirit of freedom is made much easier. This, as I have said, is largely in the future;

but when it comes, the primary school and the kindergarten will be even closer together than they are now.

Another important step needed for bringing about a more effective union is such a change in the method of training teachers that both kindergartners and primary teachers shall be made passably well acquainted with the theory and the practice of both departments. Of course, the underlying educational philosophy is the same for both. This is admitted by all thinkers and does not need argument; but in the methods of procedure there is a wide difference, and many primary teachers are actually ignorant of the procedure of the kindergarten and many kindergartners know practically nothing of the methods now in vogue in the primary school.

This has been partly obviated in some places by bringing together the kindergartners and the primary-school teachers in various meetings; and some training schools provide for a dual instruction, but only a few. Every kindergarten training school should be connected with a normal school or general training school, so that the young teachers may observe what is done in these institutions; and their instruction should include enough of the theory of the primary school to show them what is expected of the children who leave them, and to put them in sympathy with this work. The primary teachers, on the other hand, should have a course in kindergarten theory and in kindergarten practice. If there is this mutual understanding at the outset, much of the difficulty and lack of harmony will be removed.

I advocate still another means of bringing about harmony. I can see no reason for separate supervision of the primary schools and kindergartens any more than for separate supervision of second-grade classes and third-grade classes. Indeed, there is every reason for the same supervision. If a city is too large for one supervisor to take the lower primary grades and the kindergartens, instead of having one for the kindergartens and one for the lower primary grades, I would district the city and have the same technical supervision for both grades. A supervisior working with both kindergartners and primary teachers can do more than all other persons put together to bring them into harmony. She can bring about general meetings in which the common principles are discussed. She can bring them into personal and friendly touch thru various organizations and gatherings which are known and common to both primary teachers and kindergartners. I have seen in several cities the effect of this unified supervision, and it has been most happy. While other cities have been struggling along with dissensions between these two important classes of teachers, in the cities where the supervision has been one such dissension has very rapidly disappeared.

More matters of detail might be spoken of, but I have occupied time enough. In conclusion, let me say that it is absolutely essential to the well-being of the children who have kindergarten training that the kindergartens in which they are trained be in close harmony with the primary schools to which they go next. There should be no violent shocks or breaks in the progress of the

education of the child. He should go from one grade to another as naturally as he goes from one day to another. The transition from the conditions of infancy to those of maturity is gradual and imperceptible; and so should be the progress of his education. Every step forward should be a joyous step from one position of successful activity to another of higher and more difficult, but equally enjoyable, activity.

DISCUSSION

A. Caswell Ellis, professor of science and art of education, University of Texas.—There are two points of view from which to discuss the relation of the kindergarten to the elementary school. First, from the standpoint of the practical schoolman, who would take up detailed work now offered and the material now used in the kindergarten, and show how this should prepare the way for and lead up to the work offered in the elementary school. Then he would show how the elementary school would take hold just where the kindergarten left off and build its story squarely on the foundation laid by the kindergarten, and would serve in its turn to lead up to the work of the grammar school, which in turn would prepare for the high school, in which the boy would finally be prepared for citizenship in a great republic

This very practical treatment of the relation of the kindergarten to the elementary school has been so well done by the two papers presented that I could say nothing on this line without running the risk of making this meeting as stupidly harmonious as the late Republican convention.

The discussion thus far has seemed to involve the assumption that inducting the child into the culture heritage of the race, or training him to meet the present social needs, is the proper aim of education. To those holding this view what I shall now say from another standpoint will, I fear, seem mere idle vaporing; for when one has once blown his Hegelian soap-bubble around him, it is hard for him to see anything outside because of the dazzling iridescence of this bubble. Let us try, however, to look at this question for a few minutes from the standpoint of the developmental psychologist and evolutionist.

From this standpoint the relation which should exist between the work and regimen of the kindergarten and that of the elementary school cannot at all be found by an analysis of the subject-matter of culture and its arrangement into logically graded steps, nor by the graduated scaling down of the mental processes involved in the activities of adult life to fit the supposed weaker minds of children. On the contrary, we would say that the character of the kindergarten activities should be determined by the physical and mental powers ripe for training in children between three and six years of age; that the elementary school should have for its function the development of the interests and powers nascent from six to ten; and that the relation which should exist between the work of these two phases of the child's education would be determined by the developmental relation existing between the instincts and natural activities of the two periods of growth.

The limit set for discussion allows me to indicate by only one concrete example how widely different the course of study suggested from this standpoint would be from the course now offered in the schools. For example, during both the kindergarten and elementary periods the predominant natural tendency of children is restless physical and mental activity thru play. Against this the elementary school is an unmitigated sinner. The kindergarten, too, is not free from sin against its own spirit of free spontaneous play as a self-active expression of the inner. The plays here are still too much directed, and the gifts, with their mathematical symbolism, are in response to no demand of child-nature. Likewise most of the kindergarten information is still selected on the basis of adult needs and not of childhood's demands. This is an age in children when the more instinctive and emotional powers are ripening and need exercise. In the natural exercise

of these tendencies children would get a development better related to their later development, and incidentally would probably get a mass of information equally as useful as that now taught in the kindergarten.

That the elementary school should sin against the spirit which it has not yet accepted might be expected, but that the kindergarten should do so is indeed strange; for the broad, hopeful, tho indefinite, standpoint of the developmental psychologist is Froebel's own. He said that the aim of education is the development from within outward in accordance with the divine law within us, and that the child, the boy, and the man should know no higher law than to live up fully to the requirements of his age, resting assured that the full and perfect development of each preceding phase would give the best possible basis for the succeeding phase of development.

With all our recent talk about development, and all our enthusiasm for Froebel, we still continue to think of life in the terms of the old logic of addition and subtraction; and this forces a mechanical conception of development. On this basis a childish activity can serve to stimulate and promote a later phase of growth only when this childish activity contains within it some element of knowledge, or trains some specific power, which is needed in the later higher activity. Now, developmental psychology shows us that this is an utterly false and superficial way to conceive of the developmental relation between different phases of growth. Biology shows us plainly the subtle and non-mathematical relation between different phases of growth. The growth of the caterpillar and his activities seem utterly unrelated to the final butterfly life, yet they absolutely determine its perfection in minutest details. The growth of the tadpole's tail appears to bear no relation to the future frog's legs, except to give the would-be frog a means of getting about and obtaining food; yet we know that the growth and absorption of that tail furnish an essential stimulus for the later development of the legs. The instinct of the one-day-old chick to follow all moving objects appears to us vastly stronger than necessary and very irrational, but when Spaulding hooded his chicks a couple of days and gave this instinct no means of expression, he found that the fear instinct of the third day took such a hold of them that they could never properly adjust themselves to their environment. An earlier instinct or activity may serve to stimulate or check off a later phase of growth which seems to the ordinary observer in no way related, so subtle, and as yet so little understood, are the processes of organic life. We can therefore not determine the relation of the kindergarten to the elementary school until we know the subtle developmental relations existing between the natural activities of children at these two periods of life.

Many of these instincts and their developmental relation to later activities of life we as yet do not know at all. A few we do know. Time limit again precludes mention of these. The sole purpose of my remarks is to urge the study of this question more from this standpoint of developmental psychology, so that we may apply in practice the few facts which biology and child study have given us, and may begin such earnest study of children as will enable us finally to know what are the necessary phases of growth and the relation of these phases one to another. Then, and not until then, shall we be in a position to solve wisely the problem of the relation of the kindergarten to the elementary school.

THE PHILIPPINE TEACHER AND THE PHILIPPINE EDUCATIONAL EXHIBIT

ALBERT RALPH HAGER, CHIEF OF DEPARTMENT OF EDUCATION, PHILIPPINE EXPOSITION BOARD, LOUISIANA PURCHASE EXPOSITION

Ten thousand miles west of St. Louis is an American educational system that is less than four years old. It comprises schools extending from the southern limits of the domain of the sultan of Sulu to the northern extremity

of Luzon. It is unique in one respect, at least, in that it is all under the active direction of one man, the general superintendent of education. A former general superintendent, Dr. E. B. Bryan, will tell you tomorrow in general session of the work of the department as a whole. I will try to tell you in a few words what the work of the American primary teacher is.

A very small proportion of the eight hundred American teachers are in the city of Manila, most of them being assigned to the provinces. In either case the work of the American teacher is largely supervisory. He is sent to a town (or *pueblo*), and there organizes his school. The building is furnished by the town, books and supplies by the insular government. All teaching is in the English language, and teachers' classes must be conducted for the instruction of his native teachers and the *aspirantes*, who are young men and women that desire to become teachers. And let me say that you will nowhere find more eager and diligent students than these.

The Philippine town always includes numerous suburbs (or *barrios*), and as soon as the town school is organized new Filipino teachers are developed and schools started in these *barrios*.

The successful American teacher in a provincial town in the Philippines will spend little of his time in teaching the advanced classes. Most of it will be spent in work with his class of teachers and in supervision.

The foregoing applies only to the primary schools. It does not apply, of course, to the secondary schools, of which each province has at least one; nor to such special institutions as the industrial and nautical schools.

In these primary schools there are today over two hundred thousand Filipino children, and every part of the work of the schools is in the English language. The work of organizing the schools into a graded system is now being carried on by the general superintendent, Dr. David P. Barrows. The system must be an elastic one for years to come; the schools of each district must conform to local conditions.

In the three years of active work of the department a good beginning has been made. It is, in fact, less than three years since the transport "Thomas" arrived in Manila with its first delegation of teachers.

The Philippine educational exhibit occupies the largest building on the Philippine Reservation. It represents the foundation work of a system of education among a people to whom modern education was four years ago unknown, and to many of whom opportunity for education had been wholly denied.

PHILIPPINE EDUCATIONAL EXHIBIT AT ST. LOUIS

In collecting the exhibit the problems of transportation and communication, and the sending of supplies, made active co-operation difficult with most of the eight hundred American teachers. Uniformity in size of photographs sent was, for example, quite impossible. The composition work will be of interest to teachers, treating of such subjects as folk-lore, native games, local history, native customs, etc. Hundreds of letters from Filipino pupils are a part of the collection. These will be distributed to teachers visiting

the exhibit, and it is hoped that replies written to the Filipino boys and girls will lead to correspondence that will be of equal interest and value to the American and Filipino pupils.

The exhibits comprise collections from private as well as government schools. The largest private school exhibit is from "El Liceo" (The Lyceum), a large primary and secondary school of Manila under Filipino management, in which some teaching is done in English, tho most classes are taught in Spanish. "La Universidad de Santo Tomas," a church institution and the only university in the Philippines, sends a collection. The "Colegio Filipino" (Philippine College) and "El Instituto de Mujeres" (The Women's Institute) of Manila send collections, that of the latter including some attractive pieces of needlework. All of the schools named, as well as most of the private schools not represented by exhibits, have classes in English in which their pupils study the language in much the same manner that high-school pupils in America study German or French. The result is naturally about the same, as regards practical grasp of the language.

Among the exhibits of government schools may be mentioned those of the four kindergartens (organized in Manila in July, 1903), of the Nautical School, the Moro Industrial School of Zamboanga, the Insular Normal School, and the Manila Trade School. But the collections of work from the elementary and secondary schools thruout the provinces are representative of the largest part of the effort of the Bureau during the past three years. An attempt has been made to show as truly as possible the actual conditions of work, the possibilities of the future, and the amount of progress that has been made. The results shown will surprise some, and will doubtless disappoint others who forget that Rome was not built in a day. They will, of course, be clearly understood by none who has not faced and helped to solve a similar problem in education.

THE KINDERGARTEN IN JAPAN

MISS ANNIE L. HOWE, ASSOCIATE PRINCIPAL, CHICAGO FROEBEL ASSOCIATION, KELLY HALL, UNIVERSITY OF CHICAGO, CHICAGO, ILL.[1]

It has been stated that the development of art instruction in English and American public schools was the result of the first world's fair in 1851; that the Centennial Exposition in Philadelphia in 1876 stimulated the movement which put industrial art drawing and manual training into the schools of America. If these two movements, so important in the history of education, have been the direct outcome of these world's fairs, may we not hope that the Louisiana Purchase Exposition may result in giving the Orient a place in the study of comparative education?

The Occident is carefully written for the student; but in the reports of the United States Commissioner of Education, in the several works on comparative education, and in the histories of education, scant, if any, notice is taken of that brave, alert, aspiring young nation, our next-door neighbor in the Orient—Japan; that country which has her elementary, secondary, and higher education based on the study of France, Germany, England, and America; presenting a perfected system, which will astonish those who are fortunate enough to study what is being done in the Land of the Rising Sun. And it is all so young. Massachusetts dates her educational career from

[1] Miss Howe was for sixteen years principal of a kindergarten training school in Kobe, Japan.

1642 (262 years ago). Japan began her present system in 1871 (thirty-three years ago).

In 1868 the emperor of Japan issued an edict which contained the following remarkable words:

> The old uncivilized way shall be replaced by the eternal principles of the universe. The best knowledge shall be sought thruout the world so as to promote the imperial welfare.

In pursuance of this determination, a department of education was established in 1871, and a commissioner was sent to Europe and America to investigate educational matters. In 1872 a code of education was issued by the government, and at the same time the emperor made known the purpose of this code in the following words:

> It is intended that henceforth education shall be so diffused that there may not be a village with an ignorant family, nor a family with an ignorant member.

Japan has never wavered one instant from this purpose. She has sent picked men, from that day to this, to look into every nook and corner of the civilized globe to find the latest and best methods in every department of human achievement. She has engaged experts at extravagant salaries to come to Japan to show her people how to master for themselves the progress of other lands. The rank and file of the people have joined the government in its determination to find out the secrets of civilization, and it has been, in the days before foreign books could be purchased, not an impossible task for one man to copy for himself, by hand, a large dictionary of some foreign language. Such enthusiasm has not been a "flash in the pan," but has been a steady fire; and today we find:

27,154	common schools
191	blind and dumb schools
57	normal schools
33	higher normal schools
5	training schools for teachers
258	middle schools
80	higher schools for girls
8	higher schools or colleges
2	imperial universities
58	professional colleges
853	industrial colleges
3	training schools for industrial teachers
1,657	miscellaneous institutions
Total, 30,359	schools with 5,469, 410 pupils in attendance

Elementary education is compulsory and practically free. The school age is from six to fourteen years, with the age for the kindergarten from three to six. Of course, it is not surprising that the kindergarten should have been made part of this widespread and complete national system.

The first kindergarten in Japan was established in Tokyo in 1876, in connection with the Higher Female Normal School. In 1878 a Training School for Kindergartners was established. This was abolished in 1880, and the kindergarten method made part of the regular course in the normal school.

Now there are kindergartens scattered all over Japan in connection with public schools and normal schools, or as private institutions. They are found in the largest numbers in the cities of Tokyo, Kyoto, and Osaka; Tokyo having thirty-eight, Osaka thirty-eight, and Kyoto eighteen. The aim of the authorities is to increase the number of these schools, as those in existence have realized all expectations.

It is not at all unusual for the public kindergarten to be housed in separate buildings with large playgrounds and flower gardens. The one connected with the Higher Female Normal School in Tokyo has such a building, with library and study for the director and his assistants, several class-rooms for the children, and a large playroom situated quite by itself. Light and air are abundant, and the beautiful grounds are utilized for the playtime.

One may say: "Oh, yes; but this is the model established by the Japanese government." True, but look at the beautiful kindergartens in Osaka. One of them, for which plans were drawn last year, has a large playground. Each of the four class-rooms is a detached building, with its own separate entrance, toilet arrangements, and flower beds, all connecting by covered corridors with one central playroom; and, best of all, each room having a southern exposure. Or look at one of the private kindergartens; for example, the Glory Kindergarten of Kobe, with its playground, wistaria arbors, library, office, two class-rooms, and playroom thirty feet square; its flower garden with violets, azaleas, roses, chrysantheumums, lilies, and flower beds for annuals; its big plant window, filled in winter with huge callas and geraniums.

In hygienic regulations also the Japanese kindergartens are remarkably advanced. In certain points they are still open to improvement, but in their buildings, their rules regulating space, air, and other hygienic matters, the kindergartens of the West might go to school to Japan.

It is now known that the Japanese are not so much imitative as adaptive, and in the kindergartens of Japan, as in her other phases of education, the national characteristics are prominent. The patriotic spirit of the people appears in the gunboats, and in the national flags which figure universally in the free-hand work of these young patriots of three; the poetic appreciation of nature, in the frequent and loving portrayal of their "peerless Fujiyama," the "rising sun," the new moon, the ocean waves, the flowing river, clouds, the steadfast pine, and the symbolic plum blossom; or the national flower, the chrysanthemum.

Who but a Japanese child could see the poetry of falling autumn leaves, making a brocade upon the flowing river of the valley? To an occidental the leaves would fall, the river might flow, and that would be enough; unless he should feel a little of the sadness of the passing year; but to the Japanese child there comes a bit of poetry. His elder brother, seeing the falling leaves upon the flowing stream, would straightway put into words what the kindergarten child would represent with his drawing and pasting:

Fuku kaze ni
Mine no momijiba
Chiri ni ken.
Nishiki no nagasu
Aki no tani no kawa.

A rough translation being something like this:

In the autumn wind
The maple leaves of the mountain,
Falling, make a rich brocade
In the flowing river of the valley.

The out-of-door free play is a feature characteristic of these kindergartens. The children are in session from four to four and a half hours daily. From October to June the kindergarten is open from nine to half-past twelve or one o'clock. From June to October the hours are from eight to twelve or half-past. There is, however, a long recess of an hour at noon, besides the play-time in the morning, so that the children do not really work more hours than in the American kindergartens, and the change to outdoor plays make the hours spent in the Japanese kindergartens less fatiguing to the children than the shorter session in America.

Nature work holds a large place in some of the kindergartens. Watching the life of the silkworms, or the hatching of chickens; planting seeds; caring for the gardens; gathering the flowers, using them for colors, or gathering the seeds again; making blue-prints; sorting leaves, seeds, metals, and minerals; going to the hill for wild flowers; pressing autumn leaves; hearing the stories of the seasons; or singing their appropriate songs—all this and more is found in some—not all—of the Japanese kindergartens.

Much is made of etiquette, many of the directors taking special pains that the politeness so natural to the well-bred Japanese shall not be lost.

In the purely national kindergarten much is made of the patriotic spirit. The reading on all festival occasions of the emperor's rescript on education, the reverent singing of the national hymn, the patriotic songs and stories—all are used most faithfully to foster the spirit of patriotism.

Kindergartens which have won the confidence of the Japanese are very popular, and it is not uncommon to have applications filed two years in advance to insure a child's entrance when he becomes three years of age. A list of nearly two hundred applicants has been known to be in waiting in October for twenty vacancies which would occur in April, the time when kindergarten children of six, according to Japanese law, pass up to the elementary school.

TRAINING SCHOOLS

The training schools are not many and not yet perfected. Mention may be made of two—one in Tokyo, connected with the Female Higher Normal School; and one under private auspices. In the Tokyo school the course of study and the hours per week are as follows in the literary course:

	First Year	Second Year	Third Year	Fourth Year
Ethics	2	2	2	2
Pedagogy	3	3	3	3
Japanese	5	5	4	4
Chinese	3	3	4	4
English	4	4	4	4
History	4	4	4	4
Geography	2	2	2	2
Music	2	2	2	2
Gymnastics	3	3	3	3
Total	28	28	28	28

All expenses are paid by the government, including food, clothing, and sundries; but in return the graduates must teach for five years after graduation, and for two years must serve under order of the department of education.

In the private training school spoken of the course is purely kindergarten. Two years' study is required, and the pupils pay their own expenses, being free to choose their own careers upon graduation. Froebel's *Mother Play* and *The Education of Man*, both in Japanese, are text-books in this latter school. Many of the training schools are fortunate in being in the same building with model kindergartens, and also in having dormitories connected with the schools.

These training schools are able to arrange their schedules so that the students have their freshest morning hours for study, and are not obliged to come to their recitations worn out by a morning in the kindergarten, to which fatigue must often be added the long journey to reach the class.

The students in some cases are required to study in the kindergarten library and to attend the opening exercises; and, being in the same building with the children, they see every day much of the daily routine, even tho they are not actually engaged in the class-rooms.

DAILY SCHEDULE

5 A. M. - - - - - - - - - - Rising
6 - - - - - - - - - - Breakfast
7 - - - - - - - - - First recitation
8:30 - - - - Opening exercises for training class
9 - - - - - Opening exercises for kindergarten
9:45 to 12 M. - - - - - Study or practice
1 P. M. to 4 - - Recitations, study, or organ practice
4 to 5:30 - - - - - Exercise and recreation
5:30 - - - - - - - - - - Supper
6 - - - - - - - - Evening assembly
7 to 9:30 - - - - - - - - - Study

Of text-books for the training classes there has been a dearth. At present two books of foreign songs and Froebel's *Mother Play* have been translated and published. *The Education of Man* and several other books are translated and copied as text-books for the students, but have not yet been published.

KINDERGARTEN ASSOCIATIONS

There are two flourishing associations—one the Froebel Kwai (Froebel Association) of Tokyo; the other, Hoihu Kwai (or Kindergarten Association) of Kyoto, Osaka, Kobe, and adjacent towns. Several of the kindergartners are members of the International Kindergarten Union. Summer schools are also used as a means of extending the horizon of the kindergartners. Last summer, in Okayama, the educational authorities, opened a school for the women teachers of the province, giving them ten days of kindergarten and music instruction.

There are two kindergarten magazines, one published in Tokyo, the other in Osaka; and some of the English-speaking kindergartners take the foreign kindergarten magazines. It may be proper to state that all the instruction, both in training schools and kindergartens, is wholly in Japanese.

INITIATIVE OF THE KINDERGARTNERS

There are several kindergartners in Japan who are doing fine work in adapting Froebel's theory to Japanese environment. They are born story-tellers, and it would be a difficult matter to find the equal of one of the Kobe kindergartners. Her wonderful dramatic ability, fine adaptation to the child-mind, artistic arrangements of her stories, and wise selection of subjects make one of her own stories, or the narration of some other, an event to be remembered by adults as well as by children, by people who cannot understand Japanese as well as by her own countrymen. New games are constantly appearing—the dramatization of songs, stories, or events of special interest. The kindergartners of Osaka are especially interested in dramatizing the nursery tales of Japan. In the matter of songs, too, the women and the men are busy making new ones to carry special points to be developed in the child-mind. A strong party favors distinctly Japanese songs, while a smaller circle prefers a more cosmopolitan range of music.

The gifts and occupations, too, come in for modification, and while in the better kindergartens Froebelian principles are unchanged, the details would scarcely be recognized by a kindergartner from the Occident.

THE CHILDREN

Where the kindergartners are true to Froebel's principles, the children blossom like flowers in the sunshine. They use the gifts and occupations with keenest interest, enjoying the direction given and displaying marked originality. They revel in the stories, songs, games, and garden work, reproducing in their own free games what they have had in the play-room, and in their free drawing what they have heard in the morning talks.

The government is watching very carefully the progress of these children, as they go up into the public schools. In some cases they take high standing, but this is only where they have had careful, intelligent training, and have escaped the nervous pressure brought to bear upon them in kindergartens which are mechanical, school-like, and lacking in discipline.

THE FUTURE

As in America, so in Japan, the great needs are higher standards and a broader outlook.

Pupils for the training classes should bring the best of mental, moral, and physical equipment, and should be exempt from an overstrain of work in the kindergarten while pursuing their studies in the training class. They should have a longer time in the training schools, and should have the advantage of a model kindergarten in connection with the building where they study.

One other need should be mentioned—the broader outlook which an interest in other phases of education will give. The kindergartner is prone to confine her vision to her own field and forget to view it in relation to elementary, secondary, and higher education. It may not be wise to make one's self a "Jack of all trades and master of none" in educational matters, but certainly the kindergartner gets an equipment for her work none too high when she is able to see it from the standpoint of other trades, other educators, and other lands.

THE FRENCH AND GERMAN ELEMENTARY SCHOOLS

FREDERICK ERNEST FARRINGTON, ASSISTANT PROFESSOR OF EDUCATION, UNIVERSITY OF CALIFORNIA, BERKELEY, CAL.

It is perfectly obvious that within the limits assigned for the presentation of this paper it would be entirely impossible to give a comprehensive idea of the French and German systems of elementary schools. Consequently it seems advisable to confine ourselves to the discussion of a few features of these systems and see in what relation they stand to the conditions in our own country.

The peoples and the governments of France and Germany are not those of the United States; the social life is not the same; the educational ideas are far apart. Germany is a monarchy, pure and simple; France is a republic in name, but it is still dominated by centuries of monarchical tradition, from whose influence it is impossible to escape.

Our own country has gone to the extreme of decentralization, but it at least has this compensating quality, that the greater part of the reforms are modifications arising from within and are not changes forced upon an unsympathetic people from without.

With us the child starts on the road to knowledge in the primary school when he is five or seven years of age. After six or eight years here he leaves this school and enters another which we call a secondary school. The first of these two periods is completed before the second is begun; in other words, the distinction between the two is a latitudinal one, so to speak, the primary school being the natural predecessor of the secondary school, and normally providing the sole means of preparation for it.

On the continent of Europe, however, we find quite a different state of affairs. There the *Gymnasium*, or the *lycée* (and for our purposes these may be taken as types of the secondary schools of their respective countries), strictly does not receive pupils before they are nine years of age. In France entirely, and in Germany to a great extent, these pupils receive their preliminary training in the preparatory classes attached to these schools. These parallel to a certain extent the work of the primary school, but with this difference, that there the pupils are on the direct road to future professional life, whereas the less fortunate children of the primary schools are practically excluded from all higher preferment. The distinction, then, between the primary and the secondary schools abroad may be said to be a longitudinal one, with social differences forming the line of demarkation.

There is no particular desire in either foreign country, especially in Germany, to have a son rise above the position of his father. We in these United States, where every native-born American lad can aspire to become the head of the nation, find this very difficult to understand. In fact, the caste-feeling is far more firmly established there than we can readily imagine. The great mass of the people send their children to the *Volksschule*, or the *école primaire élémentaire*, in the first place because they themselves attended these same schools, and in the second place because they have not the means to pay the tuition charges at the secondary schools and the other expenses that such a course entails. These people seem rarely to have any higher ideals in life for their children than to have them join the rank and file of the great social army.

The schools of both Germany and France apparently start with the assumption that their children are born to a certain well-defined station in life; ours, on the contrary, with the principle that each individual is to a great extent the arbiter of his own destiny. We are certainly far removed from the doctrine of predestination in educational and social matters.

Altho the *Volksschule* is one of the recognized avenues of approach to the *Gymnasium*, which requires that the boy shall be nine years of age and shall have had a three-year preparatory course, yet for evident social reasons this is by no means the common method of procedure. The three years' preparation is ordinarily found in the private schools or in the preliminary classes attached to the *Gymnasium* itself. In France the transit from the elementary to the secondary school is well-nigh impossible. The fact, then, that the primary schools of these two countries practically never influence the training of those destined for the higher professional life accounts in a great measure for the differences between these continental schools and our own. An English observer has said: "In America the public elementary school is considered the basis of all its system of education, and the aim is to make it as good as possible." This could not be said of the continental systems, for there the center of interest is in the secondary school, and primarily in the classical school, altho in both Germany and France recent legislation has made the

pathway to the higher professions easier for the graduates of the non-classical schools.

Perhaps with us the transition is too easy between the elementary and the secondary schools, and the rapid rise of the great free state universities has made the higher education too cheap, thus spoiling many a good farmer or artisan to make a poor professional man. Germany has long been afraid of Bismarck's "educated proletariat." The struggle for existence in our own country has not yet become acute enough to cause any serious worry, but the rapid proportional increase in the number of secondary students is at least sufficient to furnish enough material for reflection.

Let us look at the French, German, and American children, and see a little more clearly what school really means to them. In Prussia the child is compelled to attend school between the ages of six and fourteen. Altho this gives him eight years of school life, inasmuch as there are only six classes, at some time during his course he must repeat two years. Thus he has practically six different years of school work. In the cities where there is a separate teacher for each grade this time can be spent in deepening and enriching the course.

In France the compulsory school law is in force between the ages of six and thirteen. Here, too, there are only six years of work provided for, but since the pupil can gain the leaving certificate in these elementary schools at any time after eleven years of age (and the examination for this certificate covers only the work of the two lower thirds of the six-year course), the French child practically never has to repeat a year's work simply because he has not reached the legal leaving age.

The conditions in the United States are hardly those to be proud of, for, according to the last Commissioner's Report, no less than ten states have no compulsory laws at all, altho almost without exception these are states that are still struggling with the problems of negro education. In the other states the compulsory period ranges from four years in Maryland to fifteen years in Wyoming, but it is common report that the execution of these laws is almost universally lax. The varying length of the school year in the several states makes accurate comparison difficult. In the American cities of over eight thousand inhabitants, during the last decade, the average attendance figured on the basis of the enrolment has increased from 71.1 to 75.7 per cent., and altho the length of the school year has decreased more than four days, the average number of days of attendance per child has increased nearly a like amount. These conditions do not invite comparison with those in Germany and France, where effective compulsory legislation has been in force since 1825 and 1882 respectively.

The school year in both France and Germany is considerably longer than it is in the United States, being about forty-three weeks in the former, and forty-one to forty-five weeks in the latter country. The compulsory-attendance laws are more carefully looked after than they are in this country, especially

in Germany and in the cities of France. At all events, in these two countries they have a longer school year, a longer period of school life, and more effective execution of the compulsory school law than is the case with us. Not that there are not communities in this country where, in the last two points as well as in our teaching force, we are the equal, if not the superior, of what one sees abroad, but by reason of the centralization on the other side of the Atlantic they are able to reach a much higher average.

With reference to the courses of study in the various countries some differences deserve to be noted. For upward of thirty years kindergartens have formed an ever increasingly important part of our school work, but in the United States even today they number only 4,266, with an enrolment—partly based on official returns and partly estimated—of only 257,484.

In Germany these schools are essentially private ventures; but in France there exists a well-developed system of public infant schools, known as *écoles maternelles* or mother schools. The establishment of these schools is nowhere compulsory, but whenever the community that fulfills certain specific conditions of size and density of population is willing to provide housing and ordinary running expenses, the state will furnish the required number of teachers and pay their salaries. According to the statistics for 1896–97, the last year for which the figures are available, there were some 5,683 of this grade of schools in France and Algeria, with 729,648 children, a little less than two-thirds of these being in public institutions. Reckoning the pupils here and those in the regular primary schools, we find that of the 3,000,000 children between two and six years of age—or, in other words, below the legal school age—nearly 1,350,000 are receiving some educational training, a proportion considerably greater than is found in Germany, and far ahead of the conditions in our own country.

The *écoles maternelles* are more like our lower primary grades than our kindergartens. The Froebelian influence has only partially prevailed, for almost all the children on finishing the course can read and write and perform simple examples in the four fundamental operations of arithmetic. Altho the regular work of the schools lasts from nine in the morning until four in the afternoon, they are open from eight until six in winter, and from seven to seven in summer, the time before nine and after four being devoted to supervised free play. The value to the mothers among the laboring classes can hardly be estimated, for they can leave their children here in the morning and call for them at night, assured in the meantime of good care thruout the day, and in necessitous cases of wholesome food supplied by the city.

The subject-matter of the elementary schools in the three countries is largely the same, but we do find some striking differences, as well as wide dissimilarity in the time allotment. The "three R's" are naturally common to all, but abroad the mother-tongue receives more consistent and effective treatment than it does with us, possibly because the German and French teachers are more thoroly masters of their own vernacular than is the case

with the majority of our American teachers. There one finds practically every class an exercise in the native language, and the familiar formal spelling is refreshingly missing. There the teachers are not impelled by a feverish haste to cover a large amount of ground at the expense of thoroness, and whatever is done is done well.

In Germany history and geography are not begun until the middle of the course is reached, altho in France these are found in an elementary way from the very first. In neither country does one find the emphasis laid upon foreign geography that one does with us, but this means that the home country is just so much more liberally treated. The arithmetic, too, is confined to fewer topics, but much use is made of type-forms, and it is by no means unusual to find a forty-five or fifty-minute lesson fully taken up with three or four problems. The result is that one finds the fundamental principles thoroly mastered, and proficiency is attained by means of a few problems exhaustively explained rather than by excessive routine drill work. Quality, not quantity, is everywhere the basic idea.

As yet in Germany manual work has not been made compulsory, altho the American consul-general at Frankfort, writing in 1901, said that at that time there were one thousand manual-training schools in operation in that country. Not many years ago France rushed boldly forward with a general prescription for compulsory manual work in the elementary schools, but in the great mass of the schools this cannot yet be said to be effectively taught, nor will it ever become such until the training schools themselves provide richer and more practical courses. Slow-moving, conservative Germany is yet far behind, and has thus far successfully opposed the introduction of manual work among the required subjects of the curriculum.

The religious teaching in Germany and the moral instruction in France are without a parallel in the United States. In both these countries these subjects are believed to be the most important in the curriculum and take their position at the head of the list, the study of religion in the former country occupying nearly 15 per cent. of all the time spent in the elementary schools. The moral instruction in France was introduced into the curriculum in order to replace the previous religious teaching which was discarded in 1882. There is no question but that this was an improvement over the old régime, for that had been merely a formal catechizing entirely devoid of content. The question now being agitated is: "Is this present substitute attaining the desired end?" For it never seems to rise to a higher ethical basis than that of reward and punishment. The ultra-radical and the conservative churchman are both agreed that it does not, but for very different reasons, the one wanting it abolished entirely, and the other desiring a return to the former church domination. One of these seems as far from attaining his wish as the other, for both are outnumbered by the present coalition in power in France. The very fact that the Combes ministry is now entering upon the third year of its existence—a decidedly unusual experience for the cabinets of the Third

Republic—would seem fairly reasonable evidence that the government action against the *congrégations*—in spite of the hue and cry raised by the public press at home and abroad—is quite in accord with the sympathies of the majority of the French people.

Our own future on this question is somewhat problematical. We are presumably all agreed that the moral and religious side of the individual's nature must be developed along with the literary, the scientific, the æsthetic, and the institutional, but we are far from being in accord as to how this shall be brought about. Time does not permit further discussion of this point, but it is safe to say that the experience of neither France nor Germany has been of such a nature as to warrant our attempting to imitate either.

Perhaps the weakest point about our whole system of schools is the lack of trained teachers, but one dares no longer boldly assert that the master of a subject is in so far forth capable of teaching that subject. M. Langlois, in a recent monograph on the training of secondary teachers, put the question very clearly when he said: "The teacher must know his subject; he must know more than his subject; and he must know how to teach his subject. It is only in America, where individuality is pushed to the point of charlatanism, that anybody at all can teach anything at all." Now this is just as applicable, but in a less degree, to elementary teachers.

Prussia has recognized this fact for many years, and many departmental normal schools have been obligatory in France since 1879. In 1896 more than 97 per cent. of the elementary teachers in the former country had been trained and had passed all the regular examinations. This practically means six years—three in a preparatory and three in a normal school—after the close of the eight-year elementary-school course. The German training school combines considerable practice with theory, and at the end the pupil must pass a written and an oral examination on the subjects he is to teach—as well as on the one foreign language which forms a part of the required work—and he must also demonstrate his ability to teach. Success here gives only a provisional appointment, and in order to have this made permanent the teacher must pass a second examination, not less than three years from this time. This is partly pedagogical, but chiefly practical, and demands efficient work in the schoolroom. Once safely thru this, the teacher's tenure of office is practically limited only by his own strength and fitness, and in case of disability a living pension awaits him.

In France the time requirements are somewhat similar—practically six years of training after leaving the elementary schools. Here one finds none of the formal method work, but still much emphasis on the ability to teach. Here, too, full teaching standing is normally not reached until two years after leaving the training school, and the examination is also practical as well as theoretical. At the present time in France the normal schools are supplying about two-thirds of the teachers for the elementary schools, altho all the others have passed the minimum examinations required by law before any appointment can be secured.

In spite of the fact that one can say that all the Massachusetts normal schools, and some few others in the country at large, require high-school graduation for admission to their courses, what a small proportion do the graduates of these institutions bear to the whole number of people entering the teaching profession!

When every criticism has been made and every objection offered, it still remains that American schools are doing more for our country today than any European school that might be transported bodily to this side of the Atlantic could possibly do. Schools, like so many plants, are often rendered ineffective by transplanting from their native soil. It is undeniable that the relations between teacher and pupil here in America are far more cordial than in either of these two European countries. In Germany the discipline is considerably more severe than in either France or the United States. The teacher in our sister-republic becomes somewhat impatient when the subject of sympathy with pupils is brought up. He indignantly refutes any suggestion of lack of sympathy; but the real issue at stake depends upon the meaning of the word "sympathy," for even in France it is safe to say the teacher can never forget the fact that he is the teacher, and in his relations with his pupils always keeps this in mind. On the continent there is nothing approaching freedom or familiarity between teacher and pupil, and they practically never sit down to work things out together.

Finally, our American schools develop in their pupils a certain indefinable quality made up of some of that polite material called individuality plus Yankee shrewdness plus an almost inexhaustible amount of vital energy, whose sum makes up that very thing that has been pushing our country to the forefront of the world's nations. Somehow the foreign schools do not seem to cultivate this union of qualities. It may be because their school systems do not intend that the pupils of their elementary schools shall become leaders, but only contented followers. I am not sure but what this is the result of too much "teaching" and too little use of text-books. Not that I mean to decry the value of good teaching, but there is such a thing as making the work too easy for the pupil by overmuch selection and predigestion of mental food. This results in a kind of intellectual dyspepsia where the child's critical power is weakened, and he is unable to use books intelligently or to discriminate judiciously for himself.

The result is that the American boy is far better fitted to make his way in whatever walk in life his lot may be cast than is his fellow who has come thru the elementary schools of France or Germany. For somehow or other he seems to have been able to accumulate for himself a larger amount of vital self-active force.

After all, each country must work out its own salvation in its educational as well as in its material and its social development. The educational system of every country is the crystallized result of the thoughts that have been working in that people or in their intellectual leaders, and it reflects these

thoughts more or less immediately according as the people are more or less flexible. This flexibility or power of adjustment is the safeguard of nations, for changes must and will come, and that one will best conserve its peace and its individuality which possesses this power in the highest degree. Thus advantages are quickly recognized, and as quickly amalgamated with the traditions and practices of the people. This seems to be one of the fundamental attributes of our American people; its effects are strikingly apparent in our own educational policy; and we shall never rest content until the United States shall lead the world in her schools, as she does already in her commercial activities.

THE KINDERGARTENS IN THE SOUTHERN STATES, AND IN SOME OF THE COUNTRIES SOUTH OF THE UNITED STATES

MISS EVELINE A. WALDO, KINDERGARTEN TRAINING TEACHER, NEW ORLEANS, LA.

In gathering material for this paper I thought it best to ask for statistics from all states, with the exception of Missouri, belonging to the Southern Educational Association. The opportunity of seeing the Missouri work was so good that I thought it unnecessary to say anything about it. The answers returned to my queries were, therefore, from North and South Carolina, Georgia, Florida, Alabama, Arkansas, Mississippi, Louisiana, Texas, Kentucky, Tennessee, Virginia, and Maryland.

While the data from which this paper is compiled are far from being as complete as it had been my intention to have them, and while I had hoped that every association and superintendent and minister of public education addressed would have sent in some reply, the answers which I did receive to my three hundred and fifty, or more, circular letters and questionnaires were from every section of our southern states, and from those foreign countries to which we hold the closest relations, socially and in business. The few general facts here presented may thus be taken as typical of the situation as it is now.

Kindergartens in connection with some of the public schools in the cities of the following states are reported: Texas, Kentucky, Georgia, Louisiana, Maryland, Alabama, Mississippi, Virginia, and North Carolina. None are reported in South Carolina, Florida, Tennessee, and Arkansas. There may be kindergartens in connection with public schools of some of these states, but none are reported.

I find that the kindergartens existing in connection with the public-school systems of our various southern states may be classed under these heads:

1. Those where the state law permits the use of the general school funds for the support of kindergartens for children under six years of age.

2. Those where only local school funds can be used for this purpose.

3. Those where the kindergarten is simply counted as part of the school system, and the time is not ripe for asking for a law to permit the children of kindergarten age the benefit of any part of the school fund, and where the children in the kindergartens are, in consequence, of the same age as those in the first primary class. This was the condition of the work in Louisiana before the constitutional convention of 1898, and such is even now the condition of affairs in one of our most progressive states.

In reply to the question, "Do you count the children of kindergarten age among the educable children of your state?" the answer was almost unanimously "No"—a fact which proves to anyone who thinks that a state propagation committee, as it exists in Texas and Louisiana, is a necessity—however defective its work must be on account of lack of funds, etc. In both states these committees are supported by private subscriptions, but until we convert our public at large, private work will be obliged to take the place of public endeavors in such matters.

Next in importance to public-school kindergartens existing at present in our southern states I place the kindergarten training departments of our normal schools, as I believe we must look upon the creating of kindergarten training departments in the normal schools of any country as the most powerful ally we can gain to our cause. The report from these schools thruout the southern states has seemed to me to bring the promise of great and good things to us who have worked for the dissemination of Froebel's doctrines. About 48 per cent. of the states from which data have been gathered have kindergarten training departments in connection with some of their normal schools, while a fraction less than 50 per cent. have kindergartens in connection with their Model and practice schools.

From the state and city superintendents and the normal schools came many hopeful answers to the question: "When do you expect to establish kindergartens or kindergarten training departments?" They often were: "1904–1905," or "Next year," or "Very soon now. We are fully alive to the importance of this work."

To me the whole situation in regard to the city or state normal schools taking up the training of kindergarten teachers is most encouraging, and as the establishment of these departments means that every student, kindergarten or other, trained in these schools will go out to his work an apostle of the cause, if the work of the kindergarten be properly correlated to the primary work, its importance is not to be overlooked.

I find that in some states the kindergarten work was begun in the public normal schools. This was, for instance, the case in De Funiak Springs, Fla. In others it was begun by some city incorporating it into its school system, as in Louisiana, where the first public-school kindergarten was founded in New Orleans in 1882.

I am convinced, however, that could we but count one public normal school in every state that was doing kindergarten training, the South in its entirety would soon be ours. In Louisiana we have had kindergarten training

in our New Orleans Normal School since its first session, 1895–96, and the promise in our State Normal School at Natchitoches is excellent. The new building has a kindergarten room. The president of the institution is in sympathy with the cause. The state superintendent of education is a warm advocate of the extension of this work; the voting faction has just elected a new governor, who in his inaugural address came out boldly in his advocacy of greater expenditures thruout the state on all schools, from the "kindergarten to the university;" and the general assembly has been asked for an appropriation for this purpose. So before the next school session is over I hope our State Normal School will have fallen into line, and that Louisiana will be among the states which have put within the reach of all their young women the best training for life which our present education affords.

From the city superintendents, even where Kindergartens are still an impossibility, came many hopeful answers. In many towns having no kindergartens, kindergarten methods and songs and games are used in connection with the primary work.

Not a few wrote that they had the kindergarten this session for the first time; and some wrote that they were looking forward to its addition to their school system next session.

Of the work done by the associations a volume might be written; while the large number of kindergartens supported by corporations in mill and factory districts points to the fact that even the business world is becoming alive to the necessity of the kindergarten as a help in neighborhood life.

As far as the data gathered allow me to judge, Texas is the banner state, both as to the number of kindergarten associations and as to the date of the organization of the first kindergarten association. The Fort Worth Kindergarten Association was organized in 1885—just three years later than the establishment of the first public-school kindergarten in New Orleans. All of which goes to prove that in the dim ages of kindergarten growth two of our southern states recognized its worth. If its spread has not been commensurate with its worth, it is accounted for by the fact that we of this section have but recently come again into our rightful inheritance, and the prosperity of the New South is of but a few years' standing; and every one knows by direct experience the intimate relations existing between a state's prosperity and its school funds. We begin to have money again in the South, and we begin to have kindergartens.

One of the best features of the kindergarten work of which I have been enabled to have a glimpse, thru the collection of data for this paper, comes from the Baltimore Kindergarten Association. President Griffin writes:

> The Kindergarten Association was founded in 1893 "to promote the training of teachers, to exert influence in favor of the introduction of kindergartens into the public schools, and to aid in the establishment of kindergartens for poor children." Kindergartens are now introduced into the public schools, the original object being now achieved.

From the Kate Baldwin Free Kindergarten Association, of Savannah, Ga.,

comes the best-planned campaign of work. The six kindergartens under the auspices of this association were organized with the definite purpose of showing the value of the kindergarten for all classes of children. Two are purely philanthropical and work among the most needy. One is intended to show the value of the kindergarten as a social and educational center. One forms part of the public-school system. One is connected with church work, to show the value of the kindergarten as an adjunct to the church and for religious training, and one is in the best private school of the city. The association's president, Mr. George J. Baldwin, writes: "We intend to make this city the kindergarten center of the southeastern section."

There is one criticism I would make on the object and plans of most of the kindergarten associations reporting. I am glad to hear of the slum kindergarten. The mill and factory kindergartens, even tho widespread, are but too few. The mission and parochial kindergartens are doing God's own work, but, with the exception of a few private kindergartens, founded by private individuals, the neglected rich and well-to-do's are, as a rule, being overlooked. Where are our kindergartens for the children whose lives are too self-centered and pampered to permit of their best growth into citizenship? We need the kindergarten for all the children, and we need it on a firm basis—not as the outgrowth of the generosity of a few thinking and loving citizens, but as the demonstration of the state's belief in it as a necessary part of education. We need a state law in every state permitting children of kindergarten age the benefit of the school fund. We need the kindergarten as a permanent feature of our public-school system.

Very few foreign countries have sent in returns so far.

Dutch Guiana reports fifteen private kindergartens, with 1,151 children in them. None of these kindergartens sends exhibits to the Fair.

Mexico reports ten public kindergartens and a kindergarten training department in the public normal school of the City of Mexico. Five of these kindergartens are in the capital city and five in the provinces, with 1,300 children, all told, in them. The first public kindergarten was established in 1886. A regular plan of mothers' work will be inaugurated next session, and kindergartens will be put into all the public schools of the city of Mexico next year. A good and characteristic exhibit of work is sent.

Cuba reports kindergartens in seven of its cities, all under the control of the public-school authorities, and a kindergarten Training School in Havana. The establishment of these kindergartens dates back to September, 1901, when the present government took charge of the public schools. These kindergartens send a most interesting exhibit.

There are kindergarten associations in Buenos Ayres, Argentine Republic, and in Montevideo, Uraguay; but, tho asked for data when I sent questionnaires to some twenty foreign commissioners of education, I have had no response from them. I found some kindergarten work in the Argentine Republic exhibit. Brazil sends a good exhibit of kindergarten occupations used as the beginnings of manual training in the primary grades.

Among the exhibits sent by our own kindergartens, Shreveport, La., sends some work to represent its first year's labors in this field. New Orleans sends some normal and child's work, illustrating in thought her crops and festivals, and showing several phases of the differences arising between the kindergarten standards of her Froebelian and her "new school" kindergartens. The relation between gift and occupation work is the point made by both schools.

Among the association's work we find an exhibit made by the Temple Free Kindergarten Association, of Temple, Tex., which is notably good in its simplicity and adaptability to the powers of the little ones for whom it is designed. Both color and form are specially emphasized. The Fort Worth (Tex.) Association sends some fine photographs to help decorate the state building. The Louisville public-school work is well worth studying, both from its adaptability to the little folks and from the innovations shown. We feel we have struck the keynote of the Louisville Free Kindergarten Association's efforts when we read, "New occupations from old occupations used in a new way." The Louisville public-school kindergartens are under the supervision of the Louisville Free Kindergarten Association.

One wonders why such associations as the South Carolina Kindergarten Association, of Charleston, S. C.; the Kate Baldwin Association, of Savannah, Ga.; the Macon (Ga.) Free Kindergarten Association, and a host of others doing good, helpful work, have sent no work to represent them.

PAPERS AND DISCUSSIONS

KINDERGARTEN DEPARTMENT

ADDRESS

MADAME OTTELIA BONDY, FOUNDER OF THE ASSOCIATION FOR KINDERGARTEN AND INFANT ASYLUMS IN AUSTRIA, VIENNA, AUSTRIA

Madam President, Ladies and Gentlemen:

May I be permitted, first of all, to express my deepfelt satisfaction at being privileged to address this distinguished assembly as a delegate from the Association for Kindergartens and Infant Asylums in Austria, my native country?

Austria has the proud distinction of having been the first country in Europe whose government, as early as 1872, regulated the didactic position of the kindergarten as an item of its general plan of education, without, however, making it compulsory as an integral part of the public schools.

Our general association was founded in 1879 by a handful of enthusiasts. Now we have a membership of 603, among whom we are glad to number

eleven independent associations in different parts of Austria. Thus we form a nucleus among the German provinces of our polyglot empire. From ten to twelve conferences are held annually at Vienna, where such subjects as child study, hygiene, pedagogics, and kindergarten occupations and games are discussed.

Our members, tho not too favorably situated financially, have formed a system of pensions and provisions for invalidism and old age. They have installed an employment bureau, and are just now planning the founding of a home for kindergartners. They are issuing a monthly paper as their organ for publicity.

My associates were much encouraged by what I had to report to them about the admirable Froebel work done in this country when I came home from the World's Fair in Chicago 1893. Now again, studying your marvelous exhibit in the Palace of Education, and having had the privilege of visiting kindergartens in this town and elsewhere, I shall be able to tell them that you are not flagging in your work, but rather progressing in your labor for the good of the earliest age, about which our great teacher, Froebel, says: "It is the most important one for education, because the beginning determines the manner of progress and the end."

Your beginnings with the little ones are the best example I can take home with me to my country. You teach them to love God and all his creations; you teach them to go back to their homes with loving hearts and to honor the glorious star-spangled banner of their native land, which is just now giving an unparalleled example of patriotism and of boundless development to the whole world.

These experiences I shall take back with me as the best gift which one nation can offer to another over the vast expanse of land and sea.

May a kind destiny prosper your work and ours, for the benefit of generations to come.

THE HYGIENE OF THE KINDERGARTEN CHILD

WILLIAM H. BURNHAM, PROFESSOR OF PEDAGOGY, CLARK UNIVERSITY, WORCESTER, MASS.

The new science of school hygiene has a message of the utmost importance for the kindergarten. While, of course, the home is primarily responsible for a child's health, it is impossible to separate the hygienic functions of the mother and of the kindergartner. Hence it is not worth while, in the brief discussion of this hour, to attempt any rigid division of responsibility between parents and teachers. I will ask you to consider the hygiene of the first six or eight years of life. I have not time to entertain you with the current jokes at the expense of hygiene, and I lack the eloquence to portray the glorious ideals of the kindergarten; but I have a few dry facts of vital significance.

The aim of kindergarten hygiene is twofold: (1) to defend a child from his enemies; (2) to develop those habits which may be called the alphabet of health.

1. The aim of hygiene is to defend a child from his enemies. As Perez has said, the child at birth is cast like a shipwrecked mariner upon a strange shore; he is practically blind and deaf; except for a few reflexes, he lacks power of co-ordinated movement; his only weapon is a cry; in a single word, he is a helpless animal. Again—to take a figure more in harmony with modern science—as Huxley has said, we may look upon the human body as an army of cells prepared to fight the battle of life, but destined to defeat at last. In case of the child this army of cells is liable to defeat and annihilation at the outset; for the child is poorly protected against injurious agents. At birth he is at once liable to attack by disease-producing micro-organisms. Weill, the French specialist whom I follow here, has shown the difference between the child and the adult in this respect.[1]

In the first place, while the skin of the adult presents a solid, horny surface, a real fortification all around the body, the infant lacks such protection. In case of the newborn the horny stratum of the epidermis does not exist; and later it is fragile and without the sebaceous covering. This difference, which seems of slight importance at first, explains the susceptibility of the child to certain diseases. If one goes into a modern crèche, in which the most rigorous hygienic rules are observed, one is struck with the frequency of skin diseases—eczema, pustules, ulcerations, multiple abscesses, and the like. These are due to the vulnerability of the skin. The adult also has better protection than the child by hairs at the entrance of the body cavities, by a moat of mucus with certain germ-killing or bacteriacidal properties, and by the greater resistence of the epithelial layers.

2. After infection has penetrated the surface of the body by some breach in the skin or the like, it encounters a second line of defense in the deeper skin or dermis and the subcutaneous and submucous cellular tissue. Here again the child's protection is inferior to that of the adult. In case of erysipelas with the adult the prognosis is favorable; in case of the newborn it is extremely grave.

3. When infectious germs have surmounted the resistence of the skin, of the dermis, and of the deeper tissues, they can penetrate still more deeply by means of two routes—the blood or the lymph. Each of these routes presents obstacles which vary at different ages. (*a*) The blood is less alkaline in the child than in the adult, and hence offers less resistance to the action of micro-organisms. Jacob found that to neutralize the blood of an adult fifty or sixty parts of a solution of tartaric acid was required; in case of an infant, only forty. (*b*) The germ-destroying or bacteriacidal power of the serum, according to Weill, is not as great in case of the child as in the adult. (*c*) The white corpuscles of the blood oppose a defense also against infection. These com-

[1] *Revue scientifique*, November 23, 1901, pp. 647–53.

prise the lymphocytes without germ-destroying property, and the mobile leucocytes or phagocytes supposed to have such power. In case of the adult the lymphocytes lacking bacteriacidal power comprise 23 per cent. of all the white corpuscles; with the child in the first year, from 50 to 60 per cent.; in the third year, 39 per cent.; from the eighth to the tenth, 29 per cent. On the other hand, the leucocytes, or phagocytes having bacteriacidal power, in case of the adult are 70 in 100; but only 28 at birth, 40 at the end of the first year, 54 in the third, and 64 from the eighth to the tenth. These figures have been verified by numerous observers; among them Cadet, Weiss, and Rieder. Thus the effective army of defense, the leucocytes with bacteriacidal power, is twice as numerous with the adult as with the nursing child; and the child, on the other hand, has three times as many of the neutral leucocytes as the adult.

Again, infection may proceed by the route of the lymph. In this case alone the child shows more resistance than the adult. The activity of the lymph in a general way seems to be greater in case of the child than later in life. As Weill puts it, the young child, so poorly protected in other ways, seems to have concentrated all his means of defense in the lymphatic system.

4. If infection has surmounted all these forms of resistance and attacks the tissues, the child's organism is still inferior to that of the adult, because the child's body is in constant stress on account of growth, and if most of the nutritive resources are demanded in building up the skeleton, little is left for fortifying the other tissues.

Thus the young child is specially liable to infection. Nothing offers great resistance, neither the epithelial barriers, nor the blood, nor the tissues; hence we should expect that germ diseases would be specially prevalent and specially fatal in the early years. This is precisely what happens. To quote a few of the old statistics in regard to contagious diseases collected in Bavaria:[1] For 100,000 inhabitants from 58 to 75 died of whooping-cough; of these 99.6 per cent. died in the first ten years of life. Again, 97 per cent. of all mortality from measles came in the first ten years of life; 91 per cent. of croup and diphtheria; 90 per cent. of scarlet fever.

Measles furnish an excellent illustration of the susceptibility of the child to contagion. It is the popular opinion that this is not a dangerous disease; and in case of older children and well-to-do families this is true, yet in case of children under five years it is serious.[2] Unless the mortality has recently been reduced, every year in Paris more than a thousand persons die from this disease. For the year 1895 the mortality from measles in Paris was 26 per 100,000; in London, 59; in Berlin, 15; in Vienna, 45. In Holland in the year 1896 it was 24, and in that year the mortality was greater than that from scarlet fever or diphtheria. In Munich between the years 1888 and 1895,

[1] L. Pfeiffer, "Die Kindersterblichkeit," *Gerhardt's Handbuch der Kinderkrankheiten*, Vol. I, Part II (1882), pp. 207–354.

[2] *Zeitschrift für Schulgesundheitspflege*, No. 7 (1900), pp. 374–79.

28,988 cases of measles occurred, and of these 1,077 proved fatal. Of cases that occurred in the first year of life in round numbers 21 per cent. proved fatal; of those that occurred between the years two and five, 5 per cent.; and of those between the years six and ten, only 0.4 per cent. That is, if an epidemic of measles occurs in the kindergarten, the chances are that four or five children in a hundred cases will die. If you can postpone the epidemic until the age of the primary school, the chances are that only four out of a thousand cases will die. Van Bruggen is right in demanding that when a case of measles occurs in a class, the parents of all the members of the class or school should be informed immediately.

Again, some ignorance prevails in regard to whooping-cough. The story has been told me of a teacher in a rural school in New England who, when a case of whooping-cough occurred in her school, said to the children: "Now Mary has the whooping-cough, and all the rest of you will have it; but I want you to come to school just the same." When we recall that over 99 per cent. of the fatal cases of this disease, according to our statistics, occur in the first ten years of life, we see that precautions against this should be taken. In Germany whooping-cough has been recognized as a highly contagious and a dangerous disease, and last year the ministry of the interior decided that whooping-cough should be added to the list of diseases which exclude a child from the kindergarten; and one who has this disease can be received again only on a physician's certificate, or, in case this is not procured, only after the spasmodic cough has ceased[3].

Since the child's body is surrounded by enemies from birth and, lacking means of defense, is specially liable to succumb, the first general rule is that the kindergarten child should be protected from contagious diseases at all cost.

Again, the child's nervous system is poorly protected. Investigations by Flechsig have shown that at birth a large part of the child's central nervous system is unripe, undeveloped; large areas in the brain lack medulation, the correlative in some degree of the power of normal functioning. During the early years the child's brain is growing and in rapid process of development; hence excitement, any form of premature development, or the like, should be looked upon with great suspicion. Every kindergarten method and occupation should be considered with regard to the hygiene of the nervous system. Physicians look with suspicion upon the custom prevailing in some kindergartens of surrounding children with all sorts of stimuli and keeping them continually on the *qui vive* by stories and plays that are exciting. The child's mind at this period is acquiring new powers, unstable, prophetic. There is always danger of precocity. Even premature moral development is dangerous; and there is much in Rousseau's dictum that every virtue prematurely acquired sows the seeds of vice.

Our second practical rule, then, is one that I ventured to formulate some

[3] *Ibid.*, No. 1, p. 40.

ten years ago, and that has been approved, I think, by many kindergartners; namely, the following: of two stories, kindergarten occupations, or the like, each of which will hold a child's attention and interest, the less exciting is the better.

Not only should the child's nervous system be guarded against overstimulation and overstrain, but habits of healthful activity as regards eating, drinking, sleeping, and digestion, work and rest, attention, and self-control, should be acquired. The eyes of the kindergarten child are likely to be hypermetropic or undeveloped, and care should be taken to avoid overstimulation. The voice of the child of four years, as shown by the careful investigations of Garbini, has a compass of only about six tones. Some of the kindergarten music he found beyond the compass of the children's voices, and especially in chorus-singing he points out that they cannot follow the leader without danger of strain if the exercises include more than six tones, at least at the beginning.

Again, toward the close of this period the child is getting his first permanent teeth, the sixth year molars, and in the seventh year he is very liable to lose them. There is gross ignorance in the community in regard to this point. Many parents suppose that the sixth-year molars are temporary teeth, and hence they are neglected, and as a result an adult seldom has all four of these teeth. Dr. Mary E. Gallup found that of three thousand Americans over twenty-five years of age only seven had all four sixth-year molars. The kindergarten teacher could often save these teeth for her pupils by a little judicious suggestion to the children and their parents.

It is noteworthy that the kindergarten stage is the time when the most favorable results are likely to come from an operation for adenoid growths. If an operation is performed then, serious results rarely follow, and the development of the child's throat, nose, mouth, teeth, and ears will not be interfered with, whereas delay is very liable to result in deafness, deformity of the bony structure of the mouth and nose, and arrest of physical and mental development.

Hygiene demands three things for the health of the kindergarten child: (1) that kindergarten teachers should be trained in the essentials of school hygiene and learn something of children's diseases; the kindergartner is not a nurse, but some of the training of a nurse would be helpful to her; (2) that there should be competent health inspection in the kindergarten; each child should receive a physical examination before admission to the kindergarten, and there should be periodic medical inspection thereafter; (3) that the surroundings of the kindergarten child should be hygienic, and all methods and occupations should be chosen with regard to hygiene.

The ideal kindergarten is out of doors. This, I understand, was Froebel's original plan, and this modern hygiene demands. The best kindergarten indoors is only a makeshift to meet the exigencies of urban life and inclement weather. When we do have the kindergarten under a roof, then, on account

of the peculiar work of the kindergarten, and on account of the stage of development of the children, special care should be taken for cleanliness. The dust carries the bacteria, and, as the diseases to which children are specially subject are germ diseases, it becomes specially important for this reason also that the dust should be removed. By the use of an oil brush in sweeping, and a moist cloth for wiping the tables, chairs, and the like, it is not difficult to have the children come into a clean schoolroom every morning. Investigations by Carnelly and Foggie have shown that the younger the children, the greater the number of micro-organisms in the air. This is probably because the younger children are not as cleanly. Their results also indicate the importance of the best means of ventilation in decreasing the number of bacteria.

In the best kindergartens much attention has been given to hygiene during the last few years, and if it were possible to bring together all the good features found in many, we should have a very nearly ideal condition. This practical ideal kindergarten, as we may call it, would be, very briefly, something as follows: The room is large and well ventilated, plain and simply furnished, and really cleaned every day. As regards the walls, the base is a simple hospital base, without wainscoting or ornamentation to catch the dust; and the walls above are of plain burlap, made hard to avoid the dust, and of such a character that they may be periodically disinfected. Low blackboards extend all around the room. The tables are not arranged in the old hollow square form, but like the desks in an ordinary schoolroom, so that the light comes from the side, or the side and the rear, and no children face the light. There are no lines marked on the tables. In the toilet-rooms the stools and sinks are low; individual drinking-cups are used; and individual towels, or paper napkins to take the place of these. The clay is disinfected after being used. The kindergarten material is all large; fine work is not done; and sewing, for example, is not by the old method of putting the needle in and out, but sewing over and over, and the weaving is large.

Even with the best surroundings, every kindergartner must regard hygiene, and be more or less of a nurse whether she will or not. To put the whole matter very concretely: Suppose you have fifty children in your kindergarten. All of these are especially susceptible to infectious diseases, and probably it may be said that forty of them have decaying teeth. If there are two or three six years of age, they are cutting their first permanent teeth, the sixth-year molars. Twenty-five or thirty probably have hypermetropic or undeveloped eyes. Five or ten of them have defective hearing in one or both ears. Five perhaps have adenoid growths which interfere with the nutrition of the brain. One boy and perhaps one girl are likely to become stutterers. Several suffer from night terrors, incipient hysteria, or other nervous disorders. Such children are in every school. You cannot ignore them.

The primary aim of kindergarten hygiene then is, first of all, to save the child from disease and death; and, second, to develop habits of healthy activity.

This is the essential aim. Everything else except obedience—and this may rightly be included among the habits of health—can wait. At this stage of the child's development one cannot sharply separate the duties of the family and those of the school. The aim in both must be primarily a hygienic one. From a genetic point of view, this is merely common-sense. An eye saved from premature development and strain is worth more to a child than the acquisition of the art of reading. Healthful development of the larger and more fundamental muscles is worth more than skill in any complex and delicate accomplishment.

If a child does not learn to read, or anything about numbers or geometrical figures, or learn weaving or other occupations, he is likely to have another chance later on; but if he contracts a contagious disease at the kindergarten age, he is liable to die. If he does not acquire certain fundamental habits of health in regard to eating and drinking and sleeping, it may be impossible to atone for this in later years. If an adenoid growth is not treated, the resulting deafness and arrest of mental development may be irremediable. If he loses his sixth-year molars, new ones will never grow in place of them.

Such is the message of hygiene. It is said that no man in his day cared more for a child's health than the founder of the kindergarten. It does no injustice to Froebel, I take it, to say that he would approve the aims of kindergarten training emphasized by hygiene and genetic psychology—to defend a child's body from its enemies, to develop habits of healthful activity, to train to obedience, and to cultivate the germs of social morality.

THE INDIVIDUAL CHILD

MISS BERTHA PAYNE, HEAD OF THE KINDERGARTEN DEPARTMENT, SCHOOL OF EDUCATION, UNIVERSITY OF CHICAGO, CHICAGO, ILL.

The watchwords of the kindergarten have been flung from every stronghold and outpost during its militant career until they have become current in all camps. But, as in all fields of thought, they need from time to time a new animation, which is demanded as the world moves, and new vantage grounds give material and scope for new interpretations.

Self-activity, unfolding, freedom, spontaneity—these ideas were at one time peculiar to advocates of kindergarten theories. Today the same terms, or other words for the same concepts, are the shibboleth of the advance wing of educational thought. We recognize the same meanings under the terms "impulsive attitudes," "initiative," and "original effort." The more recent terminology is significant of a broad and deep current of thought bearing in the direction indicated by the founder of the kindergarten, more than half a century ago. The new terminology is also significant of a thought which has not been simply a vamping up of the former statements of former leaders. This terminology indicates a real building process in which these fundamental

truths of the nature of man and his destiny, the laws of his attainment and fulfillment, have been put to the test of new scientific knowledge. New light has been thrown upon them by the acquisition of facts of physical and psychical growth. They have acquired a new meaning, as more than one clear mind has sought to give them expression in a daring application in the actual process of educating.

Here and there over the country are public and private schools that are as truly Froebelian in the motive which lies underneath their activities as is his own ideal school pictured in his chapter on the "Boyhood of Man." They are not faddish schools, nor loose conglomerations of imitative patchwork, but schools whose curricula and methods are most carefully worked on the basis of self-activity (original effort), spontaneity, and community life. Each shows the stamp of individuality, but all unite in these common aims. What is the meaning of this new stress upon the development of the individual? What is its process?

Again, the land is dotted with laboratories in which means are being found for the preservation of individual life, and psychological laboratories in which both individual differences and universal process are being studied; and these are yielding bit by bit their offering to the sum total of our knowledge of human growth. All defend the necessity and meaning of individual experience. But is the development of the individual to be brought about by individualism? Is there danger that children may lose the feeling for coherence, and the power to organize? In these schools of invention and originality is anything lost of mutual concession, respect, forbearance, and willingness to submit for the general good to the plans of another?

Is freedom merely the removal of outer restrictions or the buying of further privileges for every individual? The kindergarten has been accused both of encouraging caprice and of teaching its students the pernicious doctrine that individual caprice is a necessity for development, and that the freedom of the individual for which Froebel pleaded meant that the individual child should be allowed to frisk in the academic pasture like a young colt with bars down, with no restraints between him and any private domain on which he may choose in his colthood to trample. Froebel emphasizes the necessity for passivity, for following the impulsive and instinctive activities of childhood; but this is only a half-truth. In justice to his teachings it must be understood that he saw and taught the whole truth, namely, that not only is the educator to prescribe, deny, and even punish when need exists, but also that this passive attitude of permitting a child's instincts to have free play is to be supplemented by training. The young creature is not merely frisking and browsing; that figure ends at this point; for while not actually being taught to go quietly in harness, the young child is to be so managed by question, suggestion, or direction that he does what the colt cannot do—reflects upon what he has done—thus getting out of his initial act, not merely an outlet for surplus energy, but a means of seeing some principle in what he has done. Whether

by failure or by success, his acts are to reveal to him possibilities not definitely seen at first trial. This is the true freedom, hard won and never lost. Out of such liberty to play must come impetus to achieve something more, and a clearer perception of what is to be done, with a stronger grasp on the method of its achievement.

To put it in another way: a child is gaining freedom when he is allowed to initiate activity, if, as a result of it, he is taking some steps on the way toward seeing a principle. He does something impulsively for the pure pleasure of the doing; he gains a result more or less expected. He focuses on the unexpected part of his result and tries to produce it again. To do this he studies his manner of producing, and so growth goes on from impulsive, somewhat undefined, activity, thru result to an analysis of this result; often to repetition, with new emphasis to a final perception both of his own technique and of the principle involved.

As he grows older, he dwells more upon the technique, process, or method, discriminating for the sake of results. Older still, he concentrates upon the universal meaning of the act, or its really fundamental relations. But this whole educative process exists in childhood and means freedom. The more this principle is seen and applied in all education, the better do we understand what that lightly bandied word, "freedom," means.

A new emphasis has been laid upon the process of individual growth. The fear of individualism need not daunt the teacher who recognizes that freedom implies the recognition and mastery of laws—laws of physical force, laws of social give and take, laws of personal relation to both. Another element has appeared in current psychology which throws a stronger light on the process of personal growth. The individual child is seen to be forming his personal habits and ideals upon those of the persons who surround him. Born with a strong will to do, a personal bent and equipment all his own, the imitative instinct still impels him toward others who by virtue of their own individual habits and achievements are enlisting his wonder and emulation. He tries on, as far as he is able, the feeling and ideas of the people in his social world, taking out of each character temporarily assumed a certain knowledge or bias which illumines character to him. He could not be a separate individual if he would, for one of the deepest instincts of his nature is prompting him at every meeting-point to explore the personality of each member of his community by taking over to himself their attitudes and modes of behavior.

This does not mean that he is wholly at the mercy of the people surrounding him—a mere shuttlecock tossed about by each passer-by. He is not a reflector, but a transformer. In imitating he is getting behind the act to its reaction on feeling, and thus finding its motive and effects. He may reject as much as he selects with approval. This is his mode of studying psychology —formative, to be sure—of his own character, but an imitation of a phrase or a trick of expression or tone does not necessarily mean the adoption of a

habit any more than any piece of adult acting. It does mean expansiveness and elasticity in the imitators, appreciation of the shades of character in life, and hence in literature. This appreciation lends richness and openness to the individual in his social relations. By virtue of the kind of knowledge that such imagination gives one is able to live with many types of humanity in sympathetic relation. The person possessing this quality can be a leader of men, if he unites with it ambition; he can be a great teacher, if he possesses motive for teaching; he can be a great business man or a great lawyer with this power developed, which is at the root of a greater part of a child's representative plays.

I once said tritely enough to the mother of four strong-willed, emotional, intellectual children that it must be a weighty responsibility to be the one person finally chargeable with their development for good or evil. She replied that any mother who supposed that she was the one person responsible for molding her children's character was either hoping or fearing too much for her own power, for all growing boys and girls were being educated all day long by the world in countless ways far outnumbering her own contact with intent to influence. The procession of characters moves by the child; he contemplates, selects, tries on the mood, accepts or rejects its meaning. He enters into the arena of school conflicts and uses his borrowed knowledge to a social advantage; he steps upon the stage of school politics, or takes part in the real drama of his social world, employing at every turn the adroitness in this experimental school of psychology. The person of strong individuality is very likely to have used with vast personal enrichment the characters by which he has been surrounded. Strong characters do grow up in isolation presumably, but they certainly can never be so socially effective as those who are progressively using their social knowledge as they gain it among their equals, their superiors, and their inferiors.

The individual gets his own value among the others of his social world. They furnish a reflection of himself, and are thus corrections; they furnish models, and so stimulus; they furnish unexpected reactions and call forth new effort. They offer in general nourishment, corrections, and theater for the growing personality of the individual.

This brings us to some of the practical points in method necessitated by the principles of growth.

The kindergartner or the teacher can know her children at their best when they are engaged in somewhat independent work. Yet this work or play must enlist their co-operative interest. Then the born leader shows his power; the quick one who catches the idea and fits in with it reveals his talent. The story-teller exhibits control of imagery in speech and the quiet isolated worker gets his own independent results. The younger the child, the smaller the group in which he is free to express himself. A child will be full of ideas and responsive in a group of ten, but dumb before an audience of thirty to fifty children. To live always in a crowd cramps individual expression. A

child who was reckoned shy and not anxious to lead at school said to his mother that he would be glad when next September should come, because then the two classes of older children would have gone on into the second grade, and he would be one of the oldest and biggest; then all the little ones who had just come in from kindergarten would look at him and do as he did. No one would have suspected from his school behavior that he was absorbing an idea of leadership or in any way aiming toward it. This is the unconscious teaching that children give each other when individuality is exercised.

This all illustrates the demand for the small group where little children are to get social stimulus from each other.

With the very large class another "idol of the forum" appears—the evil of demagogism. Little children with small power of co-operation have an equally small power of resisting outside impressions, and these qualities, combined with very little reasoned self-control, make a large body of little children extremely difficult to deal with. Orderly they must be, but the order cannot proceed from within; control must come from without. The teacher is the integrating element. Normally she should be a quietly informing force. As an educator her function is to give a turn to observation, start a question, modify an action; all of which she can only do when her policeman's work does not press, and she has time to see into each child's problem and present attitude far enough to give that touch which he needs. This is not individualism, but personal contact.

She must create conditions that are socially fruitful, and see that no impulsive counter-current prevents them from being carried out.

The teacher who deals only with the mass must tax all her resources in one direction. She must compel, excite, tickle the fancy, appeal largely to imitation of her own model; as the only form of social unity this sort of discipline fails whether in kindergarten or high school.

The reflex effect upon the teacher is equally bad. To lead a crowd is to use the resources of the demagog. One depends upon the impulses that sway the crowd. Many a public speaker degenerates intellectually thru habitually addressing large audiences of lesser intelligence. The members of the crowd, whether juvenile or adult, are under hypnotic influences; the higher consciousness is at rest; and the individual is under the spell of suggestion, is swayed by the crowd impulse.

Too often kindergartens are governed by this influence. Yet always as an occasional thing it is effective and a necessary element in life.

The plea, then, is for a small working community; not a crowd, and not a mass of isolated units, but a mutually interested and helpful social group, leading, following, admiring, obeying, and ever producing, each taking from the group something and giving of his own individuality to it. This does not preclude the large school gatherings in which the kindergarten children participate as a body for a limited time.

WHAT IS KINDERGARTEN DISCIPLINE?

MISS MARY JEAN MILLER, MARSHALLTOWN, IA.

The critics of the kindergarten who offer either favorable or adverse comment have stated some serious facts which thoughtful, progressive educators do well to consider. These criticisms may mislead the untrained public; for deeply rooted principles do not always appear on the surface of such statements.

The kindergarten has never claimed that it could take children for one year, at the age of five or six, and so stamp them with noble character that they would forever after be honest, law-abiding citizens. It never guaranteed that children from the homes of the well-to-do and the rich, where prevails dissipation with the necessities of life, to say nothing of the abuses of luxuries, could in even two years grow moral natures abhorring divorce, shunning political "graft," and despising municipal "four-flushing." The slow "blade, ear, and full corn in the ear" kind of development requires time, skill, patience, and proper environment. A florist will never agree to supply to you strong, vigorous, long-lived plants from his hasty hothouse horticulture.

Kindergarten discipline embodies two main elements, which I shall name play and prescription. In free, untrammeled action the child prescribes for himself. In prescriptive activity he acts as another wills that he should, or as another's will prescribes for him. In play the child-self directs his natural, physical being. Without guidances and limitation, the tender, immature child could soon destroy himself. We therefore prescribe certain food, clothing, shelter, and human protection. Shall we take more care for the body than for that which the body contains? The body is but the rare case which incloses a precious jewel. Nay, rather the jewel and case are one.

The ideal of kindergarten discipline incloses the substance of prescription in the form of play. In other words, a difficult activity ceases to be drudgery when it is combined with that labor-saving element of "make believe" which play makes possible to the child. By the encouragement of the kindergartner, together with the progressive use of the kindergarten gifts, occupations, plays, games, songs, and stories, the processes involved in this otherwise laborious and uninteresting task are reapplied by the child in his spontaneous play, in which he forms correct habits.

That which is manifest in expression shows definitely what has been received in impression; and the educator can but read. Only when the child is active with his entire being may we surely know the real individual. Would that this might be constantly evident in infancy and childhood rather than thru neglect to employ it with the "sowing of wild oats" later in life!

When once a child is conscious of growth; when he feels, as well as knows, that every "today" has enabled him "to observe, to think, and to express" something which on each "yesterday" was to him unknown; and that every "tomorrow" is an opportunity to see, to hear, to feel, and to make something

yet to be known, he has an eternal interest in life which is true, vital, and within his comprehension.

The best activity of childhood is wise play; and if our social and industrial ideals were already attained, the pleasure of man would be his work. Man would not labor for gain, but he would be pleasurably active for the development which he could gain thru the medium of labor. The overrich of today are bond-servants to dissipation—they have too much capricious play; while the poor are slaves to drudgery—they have too much narrowly limited work.

Kindergarten discipline so constructs the conditions of the environment of the child as to give the proper proportion of both play and prescription. Too much self-directive play provokes capriciousness, while too many limitations restrain, suppress, and retard the best growth of the child. This does not signify that effort on the part of the child is to cease; but that the inertia and resistance, overcome by means of play, furnish the impetus for the beginning of valuable habits for future use in adult life. We combine enough play with our limitations to carry into effect an otherwise difficult task. Unconsciously the child performs it, as does the body the proper assimilation of wholesome, nourishing food. Nature provides a great variety of food products; and we select the best ones to satisfy the needs of the body, and thereby avoid monotony which might overtake us and steal our appetites.

Wise play preserves the form of caprice, but embodies in it the substance of natural laws. Without habitual obedience to the prescribed regulations of our physical and spiritual beings, as well as to those of our individual and social natures, we may become dangerous members of society and injurious factors in the universe.

If play and prescription are wisely compounded by a careful diagnostician, the child will delight in an obstacle, a problem, a prescribed task, a puzzle, or a duty to perform; for there is a never ceasing consciousness of growing power within.

A wise limitation does not repress; it only keeps the essence of being from spreading out, and destroying its power to *do something*. Play is the motive power, while limitations keep the continuous output within the boundary of best achievement. As a result the child delights in conforming to the natural laws of his being, for he is habitually and spontaneously self-active; and what is it to be self-active?

In self-activity the entire being—the effervescing individuality of the child—is combined with a growing consciousness of, and a habitual obedience to, the necessary limitations of any activity. This is learning to do thru right doing. But this rare combination can result only from a social intercourse with the child's equals in age and development, in connection with exemplary adult companions.

The harvest of such child-culture is habits of obedience, persistence, industry, sympathy, attention, concentration, and the sharing of responsibility.

What if a child *will* not respond to any prescription, and will act only his

own sweet, willful way? It is a sad and serious case, and requires special treatment. Under any circumstance, only such actions should be permitted as will tend to the welfare of the physical and to habits of obedience, industry, and co-operation Let us remember that it is useless to whip a balky horse; and that a certain wise man said, "Spare the rod and spoil the child." Slavish obedience may be better than lawless defiance, but both are far from the ideal.

When adults learn that it is better to preserve health than to restore it; that it is easier to "keep well" than to "get well," we shall have learned some lessons in morals and manners as well as in medicine.

Parents and educators will have to *in*hibit and *pro*hibit, and many useless adult customs will fade into oblivion; but children will be blessed thereby. Says Froebel: "In all true education cheerful obedience to the 'right,' to 'the best,' is essential to parents and educators as well as to children, and should be often firmly and sternly emphasized by them."

It is evident that the proportion of play and prescription will vary with the needs of the individual child; and only a wise person can determine the proper amounts.

Prescription, like the guide-post, not only shows the way, but it also limits the direction to the one best way out of the many. This limitation supplies the necessary resistance, and shuts out all that would hinder onward and upward progress.

At first the child cannot make these choices alone. He is too ignorant, weak, and immature. Therefore he requires the companionship, from earliest infancy on to maturity, of the most worthy models and fit examples for imitation and counsel. Individual and social regeneration cannot come thru the medium of capricious and self-willed parents and educators. It is social friction that polishes and develops character, and only a diamond can cut a diamond.

Secular education has more and more dropped and shifted its burdens and responsibilities, until head and hand, mind and body, intellectual and physical natures, command almost entire attention. Kindergarten discipline holds firmly to the fact that head and hand may be ever so carefully trained, and yet the individual may be wholly unfit to live with his fellow-beings. Only when the head, the hand, and the heart of the individual are educated together can we succeed in developing a complete being.

As too much, or unwise, prescription and drudgery are yet a part of some of our educational methods and practices, it may be seen that an ideally trained child might not be a successful "record-maker" in our advanced grades and higher institutions. "An education which aims to make possible the procurement of the necessities of life, and the establishment of justice, without an ideal of the origin and destiny of man and nature," is sadly deficient.

Kindergarten discipline has ideals for the religious as well as for the physical, social, intellectual, moral, æsthetic, and emotional natures. These ideals are given to the child in the example and practices of his adult com-

panions. Doctrine and dogma of parents and educators must have corresponding examples of duty and doing, or the child can but wrongly interpret life. Adults are the Bible which every day and every hour is meditated upon by the infant and growing child. Creeds and tenets are the crutches which assist weak adult humanity to climb to heights delectable. They are not essential to the childs' development, and should be reserved for his more mature needs.

The machinery of our politics, and the politics of our educational systems, tend to work havoc in our Republic's garden spot; and our Eden of democracy shows signs of a growing Inferno of anarchy. What may we expect of a nation where immoral conditions have a legal right? What can we hope for in our cities and towns where such conditions are permitted in so-called slum districts and saloon and brothel quarters; where even the children and youths are launched upon the turbulent seas of a corrupted environment, to say nothing of a contaminated heredity? Criminals are permitted to be legally made faster than the present reformatory practices of family, social settlements, and church can correct.

The state's treatment for its wrongdoers is jail, prison, and capital punishment. Is it at all strange that much of our discipline of children has been of a retributive nature when the government so deals with its citizens? Let us be honest. Rote-teaching and corporal punishment in our public schools have been natural and necessary counterparts of such a condition of affairs. Teachers have come from the homes of the people, and two or three years of normal-school or other training of the adult cannot wholly eradicate the habits of years of wrong thought and action.

The high ideals for which education has stood have been impossible of realization. Educational practices have been far in advance of those of the home and state. The church and numberless charitable institutions have been keeping pace with educational methods. But all of these forces have not been sufficient to reform and cleanse our social whole. Crime still prevails to an alarming extent.

The kindergarten with its "superb basis," as one critic states, has been taken into our educational system and enveloped by it; for the limitations placed upon its entrance are such as to choke it upon the threshold of its usefulness. From six months to one year only is allowed the average kindergarten child in our public schools today, and then he is a member of so large a group that favorable conditions for growth are impossible.

Sectarianism on the part of kindergartners has been a necessity in order to preserve even identification of ideals. We should otherwise have been trodden under foot in the trail of tradition. When the time is ripe, along with other evolutionary signs and expressions of progress, we too shall drop our husks of sentimentality and burst our shells of narrow exclusiveness.

The kindergarten is deeply rooted in the minds and hearts of many leading thinkers because it supplies a long-felt need. When this is sufficiently recog-

nized by the individual voter, we may hope for legislation which will produce radical changes in our educational conditions and practices. Present criticisms like a storm may clarify the atmosphere and open up a vista of many hidden truths.

Two things we need in education today: money to make possible more ideal conditions for the careful working out of the details of theory; and worthy models who are fit examples for imitation and counsel in home, schools, government, and church.

If the billion of dollars legally spent last year for a great evil could be turned into the channel of education, the social whole might be cleansed, many educational faults could be corrected, and the children born into so great a Republic could from earliest infancy on to maturity be educated as worthy citizens, to preserve its virtue, equality, and frugality, and to dispel vice, inequality, and greed. For says Froebel: "A child who plays capably, with quiet self-activity, and persevei ingly until overcome by physical weariness, will become (if later education does not destroy the foundation thus laid) a capable,quietly persevering man, who self-sacrificingly promotes his own and others' good." "Within must freedom be won, within must activity be developed, within must purity be felt as the atmosphere of life;" for "whoever has been cultivated to genuine humanity is also educated for every particular requirement in civil and social life."

DISCUSSION

Miss Elizabeth Harrison.—I do not know that I can give any criticism of Miss Miller's paper, if by "criticism" you mean a difference of opinion. There is one point which I desire to emphasize in the discipline of children. It is the training of the moral will. Only last week I was talking with a mother who said that the most helpful suggestion that she had ever got hold of was the story of an old schoolmaster who was taking his boys for a walk into the country. They were very, very tired, and the boys began to jump and grumble and complain of the trip. He said: "Boys, each one of you cut a branch of a tree, and we will ride home." That is the keynote she made for her home when the difficulties seemed hard. I do not think that is moral training. I think there comes a time when the child must learn absolute obedience—doing what he does not want to do. Miss Miller meant that, but I want it emphasized.

Later the creation of the ideal within the child is to make him willing to do the right thing. The eternal law is outside, and that eternal law he must get inside of him.

A little boy, seven years of age, whose elder brother, a grown man, was teasing him, was raised to such a tempest that he went into the hall, took his brother's new hat, and jumped up and down upon it until it was a wreck. He was punished. Some time after this occurrence his teacher handed him a new hat, asking him to carry it to his office. The little fellow said: "Mother, as I walked along with the hat, I thought I could do with it just what I wanted to, but I thought he trusted me with it and I didn't." That boy had moral training. The outside "ought" had become the inside "must."

When someone asked one of the boys at Rugby how it was that Dr. Arnold governed, he said: "I do not know that he does govern us. He is such a gentleman that he seems to think we are all gentlemen." We must have that sense of courtesy in approaching a child as tho we expected him to do the right thing. When that expectancy fails, we should use the outside "must."

MISS FLORENCE LAWSON.—The children themselves appreciate the establishment of law and the fact that they must obey. I remember one instance of a child who had broken one of the rules of the gymnasium. I said: "You know what you are doing. What are you to do now?" "Go into the house." The children themselves appreciate prompt obedience to law, and also the justice of punishment when they violate law. Miss Miller says we cannot drive a balky horse. No, we cannot; but let us not forget to consider what makes a child "balky." Is it our faulty management, or is there bad discipline in the home, or is the child ill? What is the cause?

MISS JENNY B. MERRILL.—Some of you may remember that last year, in Boston, Professor Greenough read a paper before this department which commented unfavorably upon the results of kindergarten discipline as seen in a number of high-school boys. There was no discussion of his views, and, for this reason, the subject is again before us. I am particularly anxious to have one of these criticisms answered.

Professor Greenough claims that he has noted "a scattering versatility, a wide, but a too superficial, interest, and a lack of persistency" in these boys. We must learn from our friends, the critics. This criticism has led me to inquire whether it is not true that we are inclined to introduce too many occupations within a given time. And is not the kindergarten supply list too long? If you are of the opinion that every occupation in sequence must come before the child, as I am not, even so there need not be many brought forward at once. Many kindergartners present a different occupation every day in the week. Recently I asked a kindergartner: "How is it that your results are so much better than last year?" She answered: "We have been concentrating upon a few occupations. For example, the children draw or paint every day." Are not the children often more persistent than we are? Do they not beg for the same story? for the same games? We may destroy natural persistency by too frequent change and too great a variety.

MISS EVELINE A. WALDO.—I am glad to hear you advocate following an occupation in the kindergarten several days in succession. We change too often and jump the child from one thing to another.

MISS HARRISON.—We must not forget that discipline is, or should, be a slow and steady growth. We must not expect the same result the first week that we should in the third and fourth.

MISS MERRILL.—We have been criticised for permitting children "to choose" too much in the kindergarten. Personally I believe that children generally are not sufficiently encouraged to exercise a deliberate choice, and yet I have known "choosing" to lead children to appear whimsical. The importance of exercising free choice, and how best to do it, is a subject that demands more attention in our training classes.

Yet another criticism is that kindergarten discipline makes children too dependent. I am glad to say that I have noted a growing tendency among kindergartners to dispense with "the kindergarten maid;" to teach the children to wait upon themselves and upon each other; in short, to be helpful in many little ways about the room.

[Several instances were given illustrating the power of a well-modulated voice and the use of the proper tone in disciplining children.]

VALUE OF ANIMAL PETS IN THE KINDERGARTEN

ANNA E. HARVEY, PROFESSOR OF KINDERGARTEN METHODS, ADELPHI COLLEGE, BROOKLYN, N. Y.

The story is told of Janet, the faithful servant of a Scotch minister, that one Sunday she made bold enough to criticize her master's sermon. "Janet," said the minister, "I hear ye didna like the sermon the day; what was the

matter with it?" "Weel," responded Janet, "thae was jist three things the matter wi it. First, ye read your sermon; in the second place ye didna read it weel; and in the third place it wasna worth reading ava!"

When our esteemed chairman invited me to read a paper before you today, I felt the dangers of my own position, but have tactfully maintained the truth printed in our program by preparing a paper, and wish I might as tactfully disarm your criticism by declining to read it. But my position is beset with graver danger than Janet's criticism, for I recognize among the members of this Association lions to right of me, lions to left of me, lions before me; and it is with no little apprehension that I call forth my menagerie to speak for itself, and, with me, to plead for a place in the kindergarten and in your esteem.

Before introducing my first little group of pets, I would make the general statement that the greatest value of the pet in the kindergarten is the joy which it brings to the children. They have something that is alive, something that appeals to them for care, and which, being their very own, awakens a feeling of sympathy, a sense of responsibility, and the consequent exercise of fostering care and protection; all of which are necessary elements in the character and development of the man and the woman, to whom care for dumb animals and care of fellow-man are equal and controlling obligations.

Now let me present to you my first group of pets—a very quiet little family of rodents. Their positions on the roll are not honorary, but this varies in different sections of the country. Here they come, Bunny, squirrel, and guinea pig—three that are always present; while the white rat brings up the rear—a pet not as certain of popularity, but often introduced.

If we may have but one of this little family, by all means let us choose Bunny. He is such a sociable little chap and so ready to be friends with all. No one hears him as he moves around and pays his visits from chair to chair, or stops for an occasional caress. Bunny's quiet, amiable, social nature alone makes him desirable as a pet, and when we add to his attractiveness his dependence upon the children for food, and upon the kindergartner for proper conditions, his value is readily seen, since these babies must absorb an amount of valuable information from their actual contact and care of their pet. While Bunny's home is where the children are, when he has become a member of the children's circle, they will know what he loves to eat and how he eats it, how he runs and listens, not because they have been told so many facts, but because they have observed and discovered these things for themselves. They have fed him, they have called him; they have noted, too, his many cunning habits, and oftentimes have imitated him.

In an Italian section of our city there is a kindergarten where it is necessary to have a handwashing period each day before using the perishable material. Here, among the dark-haired children of the South, a little white Bunny found a dwelling-place, and at once, adopting his little human companions, proceeded to regulate his actions in accordance with theirs. As each day the

basins were brought in for the children, Mr. Rabbit stopped in his play, and, thinking it the most convenient opportunity to teach how he washed, performed his own ablutions, continuing from day to day until it became a part of the regular program.

But I must leave many of the "cuddle-down," "raggy-lug" stories unchronicled, for, tho Bunny is an important and valuable pet, he is not the only one and may not have more than his allotted share of our attention. I have spoken only of his value in the kindergarten, but another kindergartner states that she could write a paper upon the value of "Bunny in the Home" as well.

The gray squirrel comes next on our roll of rodents. As a rule, this little fellow is a visitor only for a while. He seldom becomes as friendly as the rabbit, but, be his stay long or short, he teaches many a valuable lesson. His thriftiness is predominant even in captivity.

One squirrel who had an ideal home in a large cage was very particular about his bed. Each morning he brought the cotton out, teased it, and when satisfied that it was thoroly aired he remade his bed. The children loved to fill his food-box with nuts, for it was one of their greatest pleasures to see him scamper off with them and hide them under the sawdust of his cage or in his bed, emptying the box with surprising rapidity. One cleaning day almost two quarts of nuts were found hidden under the bed, and, in spite of our efforts to remove them, under that bed he insisted upon keeping them. At a certain period each day the children had physical exercises, and this was the time when Jack found his way to the wheel in his little inner cage and took his exercise with them.

Jack and his brother Tricky were such delightful pets. Occasionally allowed the freedom of the schoolroom, they ran mad races across the floor, their little feet pattering and scratching as they foraged for nuts and scampered merrily away to bury them in every possible hiding-place.

Each little child felt responsible for their care and food, and at Christmas a large basket of nuts was presented to these pets. The children learned that the squirrels had a very good time, but were neither boisterous nor noisy. They watched their careful attention to their food, their dainty, tidy, eating and their perseverance and inquisitiveness were a source of great delight.

Tho these lively little chaps were pets of several years ago, the boys and girls who shared their kindergarten with them and cared for them often return to talk over their cunning tricks and interesting habits, or relate many an anecdote of them. After such companionship and experience only good influences and a spirit of gentleness toward animals could develop.

Where children are older and begin to classify, or for purposes of comparison, I would suggest as substitutes for the rabbit or squirrel the guinea pig and white rat. These little animals are very responsive, appreciate good care, and soon become very tame. An amusing incident is told of how occasionally one may acquire a reputation for the care of animal pets and

may have them thrust upon her without regard to pedigree, complexion, or previous manner of existence. Such a kindergartner was summoned from her circle one morning to an audience with the ashman of the neighborhood. After a few introductory remarks as to the condition of business and the weather, he produced a white rat from his pocket and presented it with this remark: "Please, mum, I found this fellow in an ash barrel up the street, and he seemed so nice he ought to have good care. I knew you took care of all kinds of things here, so I brought him to you." And so a little white rat was added to that menagerie, tho he was permitted to remain but a short time, as it is possible to overdo in this matter of animal pets. It is much wiser to have one pet at a time, and to give it the entire attention and constant care, than to divide the interests among many.

With the right conditions we may introduce a family dog or cat. However, as these are household pets I believe it a wiser plan to bring them in as occasional visitors, rather than to give them a place in the kindergarten or care for them for any length of time.

Our list of kindergarten pets need not end with these four-footed friends. Indeed, it would not be complete without "good Mother Hen" and her chicks, and the doves or pigeons that fly away and return again to their home in the schoolroom window. One of the greatest opportunities for gaining knowledge thru observation is given by Mother Hen training her brood: teaching the babies to scratch for themselves; her different calls, and how the babies understand and obey these calls; the peeping and clucking over every new morsel; their play as they climb and tumble and roll over the mother's back, until, tired out, they cuddle under her warm wings. I know some little children who learned more from a three-days' visit of a hen and her chicks than the young ladies of a certain training class had known in all their experience. This special Mother Hen became so popular that she monopolized the attention and affection of students and teachers from the kindergartner to the principal.

In considering doves or pigeons as pets the question arises: How shall we bring the dove-cote near enough the kindergarten for observation and care? One ingenious kindergartner has had a pigeon-house so constructed that it fastens outside the schoolroom window, and here the birds go forth and return, telling their experiences in their own soft, crooning way, and seeming to enjoy the companionship and attentions of the children as they feed them at the window and often coax them to pay a visit in the kindergarten room. In another kindergarten a pair of ring doves found a home and built their nest in a corner of their house, where just at Easter time they presented the kindergarten with a pair of baby doves. Here the children had the privilege of watching the parent doves as they nursed their little ones: the care they exercised in feeding their ever-hungry offspring; the shared responsibilities; how they were kept warm and finally urged to leave the nest, only to continue their painstaking and training until they were independent and able to help hemselves.

In pleading for the pets in the kindergarten I have laid emphasis upon the value of association and observation, but I feel that I should say a word in regard to moralizing. We often see the naughty little chick or the disobedient one, as we see the naughty little child occasionally, and there is danger of too great moralizing in these instances, as well as in regard to the very natural actions of either Mother Hen or pigeons. I know of one kindergartner who was very thankful that she had not called special attention to the devotion of the doves to each other. In this case one brood of young doves had been driven from the nest to make room for the second addition to the family. For a time peace reigned in the dove-house, until a certain day when the parent doves were called from the nest and invited to a special treat of hard-boiled eggs. While father and mother were feasting, a young pigeon, who evidently resented the intrusion of the newcomers, flew to the nest, and catching the baby dove by the neck, threatened to give him the *coup de grace.* He succeeded in giving his victim a good shaking before the father dove flew wildly back to the scene of this unequal battle, and, using his wing as a slipper, he furiously slapped his insubordinate son and brought him to an inglorious defeat. Peace and harmony do not always dwell together even in the dove-house.

It is only under the most favorable conditions that I would advocate maintaining any of these pets for any length of time, but it is always possible to entertain one or another of them as visitors during the course of the year. But, no matter what the conditions, there is always one pet that every kindergarten may have—the unobtrusive little box turtle, who stays where you put him without a murmur or remonstrance, eats so very little, is so very quiet, and gives so little trouble. Yet it is wonderful how tame and interesting he will become.

It is possible in planning for the entertainment of these pets to make a single house serve many. A large cage covered with wire netting and lined with zinc or tin in the bottom is a home always ready. Bunny, who soon learns the run of the schoolroom, will make it his house at the close of the session, and it will prove equally satisfactory for the squirrel and doves. And while it may not be furnished with all modern conveniences, for our little visitors who use it only as a place where they may sleep and eat and run about, it is always ready.

Our object in bringing these pets into the kindergarten is not that we may teach their length or breadth or thickness. Nor is it of any value to know the form that they resemble. They may be ovoid, conic, or spheroid, but the children will pay no regard to this form of knowledge. The life-side of nature teaches our little people to *love* what is alive, to enjoy its companionship, to grow in sympathy with it, to care for it unselfishly, and thru this ministry to learn to observe carefully, exactly, truthfully. And, no matter what the conditions, there is always some way of bringing this living association to our children. The aquarium and terrarium are possible under most limited conditions.

Is this knowledge that comes thru association with pets passing or permanent? A little boy who had been out of the kindergarten for two years returned one afternoon from a primary class and said: "What do you think Miss —— wrote on the blackboard for us to answer? She wrote, 'Is the Bunny fierce?' Wouldn't you think she would have known better?"

That factor in education which makes all things possible is a close and accurate observation; yet how few possess it! Not long ago, in one of our large stores, I watched a woman who was ordering a chinchilla cape, and agreeing to pay an enormous price for additional skins which were necessary to make the garment sufficiently long; and I overheard the following conversation: "What is this chinchilla, anyway?" "Oh, madam" (He was a very obliging salesman), "it is an animal." "Yes, I know it is an animal, but how large?" "About the size of a lion, madam." And the clerk without a conscience continued to sell the woman without observation a dozen or more of the tiny skins that were hanging all about the place where she stood.

We may smile at the simple-hearted woman who paid a visit to Central Park particularly to see the hippopotamus, and who, when the creature drew himself from the water, gave expression to her surprise in the words: "My, but he is plain!" We may smile, but we must give her credit for a quick, correct, and exact observation, and a truthful statement of it.

As I have presented no theory, I cannot conclude with any argument, nor will my subject permit of any eloquence. I have given you the plain statement of plain facts. I *know* the value of our kindergarten pets; and should you ask me whether we can have a kindergarten and leave our pets out, I would shake my head and answer with the good old Scotch woman: "I hae ma doots."

PAPERS AND DISCUSSIONS

ELEMENTARY DEPARTMENT

THE NATURAL ACTIVITIES OF CHILDREN AS DETERMINING THE INDUSTRIES IN EARLY EDUCATION

I

KATHARINE E. DOPP, INSTRUCTOR IN EXTENSION DIVISION, UNIVERSITY OF CHICAGO, CHICAGO, ILL.

When the child is viewed as a part of the social process, he is seen to be at the same time an epitome of the past and a promise of the future. His activities reflect the early history of mankind, and they foreshadow the man that is to be. The form of his body, the structure and arrangement of nerves and muscles, the instincts and attitudes which impel him to act, are inherited

from the past. But he lives in the present, and his problem from the first is that of reconciling his physical inheritance from the past with the society into which he is born. The home is the institution which helps the child to take the first steps in the solution of this problem. The function of the elementary school is that of providing opportunities for effecting a more complete solution of the problem.

By virtue of the mechanism he has inherited from the past, the child is a self-active being. The stored-up energy of nerve-centers is constantly seeking an outlet. Previous to the age of seven years the undeveloped body and mind of the child plainly forbid activities which require skill, and which make a demand for the co-ordination of fine muscles and nerve-centers not yet developed. The growth which is taking place in the large muscles, however, and the energy stored in the nerve-centers which control their movements, make an urgent demand for such large activities as creeping, walking, running, jumping, sliding, swinging, whirling, and rolling. These activities, because they represent a technique for which the muscular and nervous system of the child is ripe, afford satisfactory emotional reactions together with such other psychical accompaniments as function naturally within the process.

The free and varied movements involving the use of the large muscles are paralleled by a great variety of apparently unrelated impulses. Change, variety, capriciousness, characterize the child's activities at this time. One impulse follows another in quick succession as new stimuli affect the senses. Attention can be sustained only as means are available for reinforcing the power of the stimuli. The child can inhibit action in the presence of dreaded objects, but is not prepared to inhibit thru ideas. The physical mechanism upon which inhibition thru ideas depends is not yet developed.

The child is in bondage to his senses. His alertness to sights and sounds is undoubtedly due to racial habits which were ingrained in nerve and muscle during the dangerous life of the remote past. At first the child is interested in sights and sounds apart from any intellectual content they may have; but even in the "rattle" stage the child *uses* sense-stimuli to get his relations to objects; and, as he advances, he imitates movements and sounds, and in so doing acquires an experience of greater content.

The fact that the child during the play period is less interested in a round of activities than in the moment of greatest dramatic interest favors expression thru pantomime and dramatic play. Instinctively the child imitates animal movements in his play. A child of three living on a farm imitates activities in which the animals of the farm play a part. He plays riding or driving the horses, using an imaginary whip in a vigorous way. Again he plays leading, or tying, or catching a horse, as the image of the moment dictates. Sometimes he shows two or three related steps, as in leading and tying the horse, but the sequence is a matter of little consequence.

The rhythmic trotting or galloping of horses, the cries of animals, the songs of birds, the humming of bees, and the human activities which come within

the range of his senses, likewise lend themselves to the child's dramatic play. Such imitations permit a natural outlet for the child's surplus energy, and they provide opportunities for securing self-control.

Since pantomime affords a free use of the entire body, it is a favorite mode of communication at the time when the image tends to seek an outlet in the simplest and most direct way. Pantomime can be used in every school. It requires no material equipment. Like all other modes of communication it should be used, first of all, in acquiring and communicating first-hand experience. When this basis is laid, however, it is valuable as a tool for the acquisition and communication of experience gained thru the use of symbols. Used in this way, pantomime stimulates the child to a thoughtful use of his senses, and leads him to make use of the experiences gained in finding his relations to people far removed in space and time.

Since it is thru the image that the child controls his bodily movements and extends his experiences, the chief function of the teacher at this time is that of developing a rich imagery. In doing this it should be remembered that, altho the child is most interested in some striking particular, this striking particular would lose much of its significance if it were dissociated from its natural setting. For this reason the teacher in presenting a subject should recognize the complete situation—the simple round of activities involved in the experience—and allow the child to select from this that which is most significant to him.

Modeling in sand and in clay, drawing, and painting are as well suited to express the child's interest in the dramatic moment of an experience as pantomime. Sand is sufficiently plastic to be adapted to the child's direct attitude, and even clay responds readily to the touch. Drawing and painting make a larger demand for a supple hand, and interpose an instrument between the child and the material upon which his image is expressed; but, if carried out in free and large movements, they are well adapted to express the child's imagery.

The child's interest in materials at this time is not so much for the purpose of construction as to get first-hand contacts with them. They affect his senses and stimulate him to activities which yield rich images. Materials are not yet examined in a critical way. The thing the child can lay his hands upon is made to serve his purpose. In his attitude toward nature he is destructive. He takes what he can get without thinking of the consequence of his acts. The child's interest in results is so slight that playing do a thing is as satisfactory in most cases as really doing it. But whether he works upon materials and produces tangible results, or whether he is engaged in pantomine and dramatic play, he is not disturbed by any sense of his own inability. His pleasure in the activity and his confidence in taking the initiative are so great as to lead him to experiment in many ways.

We do an injustice to the child when we interpret his varied and fleeting impulses, his interest in striking particulars, and his inability to handle abstract

problems as ground for presenting a course of study made up of disconnected facts. Just as occupations relate a variety of impulses and activities, so such subjects as the *home*, the *neighborhood*, and *simple farm life* relate a variety of occupations. The study of such subjects calls for the use of field trips, informal out-of-door lessons, real work, pantomime, play, modeling, construction, painting, drawing, story, and song. By allowing the child to participate in planning the most appropriate occupation for the time, and by allowing him to co-operate in securing materials, and in arranging the tangible results of occupations in an order which is suggestive of a natural sequence, by maintaining conditions which are favorable to the growth of the inventive spirit, the way is paved from the impulsive activities, natural to infancy, to habits which involve a higher degree of intellectual control. Series of paintings, constructions, and models which represent the work of the year are invaluable as a means of making the transition to an interest in a whole round of activities.

The changes that take place in the child's occupations during the transitional period are those due to changes which are ushering in the period of childhood. The finer muscles and the nerve-centers controlling their movements are beginning to develop. Means and ends are becoming distinct and the response to stimuli is less direct.

A recognition of the relation of the child's natural activities to the past and to the present makes it evident that the most fundamental experiences of the race at the time it was making the transition from natural to artificial tools are most valuable materials for the child. Those achievements of mankind which constitute the lower rounds of the ladder of human progress, which characterize social life at a time when it was sufficiently simple for the child to understand, which embody processes which he is able to control, which appeal to motives which he is able to appreciate—these furnish the type of occupations best suited to the child of seven years. These occupations are not for the sake of skill, they are not for the sake of utility in the narrow sense of the word; they are, rather, devoted to securing an all-around growth and a rich and varied experience. Tho they take root and find nourishment in the life of the past, they bear fruit for the present and the future.

As the child of eight years enters the stage where there is a cessation of physical growth, the energy previously devoted to the growth of mass in the muscle is free to expend itself in a differentiation of mass; that is, in the development of the smaller muscles which are involved in all skilled movements. This change which takes place in the nerves and muscles is accompanied on the intellectual side by an interest in details, by an interest in forming orderly steps for the purpose of securing desired ends. On the emotional side it is accompanied by differentiation in interests, which in turn demands a differentiation of activities.

No longer satisfied with play, tired of a "make-believe" process, the

child demands serious work as well as play, and he questions whether stories are true. As he becomes more conscious of the means used for securing definite ends, objects begin to stand out as results of activity. The child is less ready now than before to take the initiative, less confident in his own ability, less direct in his mode of response. He is more critical of materials and products, and more conscious of himself as an agent. As the child becomes conscious of his inability to express his idea in a satisfactory way, training in technique becomes imperative.

Since the demand for technique emerges from an unsuccessful experience, training in technique should follow the attempt to make use of it, and, in turn, should be followed by its successful use. By making training in technique subsidiary to vital experience, skill and insight go hand in hand. Such relations inevitably involve failures, but this is not a matter to be regretted. The child must learn what it means to fail and how to turn failure into success. When he learns to turn back upon his experience, to discover what it was that caused the difficulty, and how to prevent a repetition of the mistake, he has a lesson he can never get from following methods of dictation.

The problem of the teacher at this time is that of securing the rich imagery necessary for the acquisition of the skill and the insight which the child needs. The solution of the problem must come thru the selection and presentation of objective ends which appeal to the child's interests and relate him to activities of world-wide significance.

The child's desire to control things, animals, and forces, to use tools, appliances, and machinery, offers a clue to processes which are significant at this time. His interest in *sequence* and in *reality* demands a large use of construction and of language—modes of communication well adapted to express the whole round of activities. Field trips and excursions to uncultivated places, or to farms and other places of interest, give the child an opportunity to secure raw materials and to observe processes by which they are prepared; but unless these activities are supplemented by occupations which call forth a personal interest in protecting and cultivating sources of supply, it will be difficult to make the transition from the destructive attitude toward nature to that of protection and sympathetic care. The child who wishes to have his own property rights respected is in a position to be taught to respect the property rights of others. The child who becomes conscious of the limitations of the sources of raw materials he needs is in a position to appreciate the necessity of protecting sources of supply. The child who feels the inadequacy of individual effort is prepared to appreciate the advantages of co-operation.

If the school is to act as a unifying force in society, the child must pass from occupations which minister merely to personal needs, to those which secure results of social value. Individual effort, supplemented by labor in common, must give way gradually to a real division and co-operation of labor. Perhaps no better opportunity is available for developing first lessons in social co-operation than that provided by the necessity of caring for the schoolroom

and grounds. Needs as evident as these require no "Tom Sawyer" device in order to call forth a response from the child.

Methods which lead the child to conceive his own simple duties as "make-believe" city functions result in mental confusion. They likewise lessen the respect of the child for the simple every-day virtues. Occupations illustrative of city functions are perfectly legitimate and certainly desirable. But the child has many *real* points of contact which relate him to the civic life. Upon the experience which comes from these real points of contact civic lessons should be based, and not upon distorted views of the simple occupations involved in the organization of the school.

As frequently treated, such occupations as cooking, sewing, and carpentry are for the sake of skill and so-called discipline, and not for the sake of real insight into life. This is a serious mistake. Skill and discipline are essential, but in their best form they are not to be attained by methods which isolate them from their social setting. Besides, it is a mistake to expect of the growing child a skill which can come only with thoroly differentiated interests and a well-developed body. Not skill in one art or craft is the aim at this time, but a working knowledge and skill in a great variety of arts and crafts. And thruout the period of childhood insight should keep pace with skill. It is only in this way that educative results can be attained. Just as the acquisition of many varieties of skill satisfies the needs of the physical nature by affording exercise for the fine muscles and the nerve-centers which control their movements, so the history of the social evolution of the various occupations satisfies intellectual needs. Such a history gives new meaning to personal and small-group experiences. It relates them to kindred experiences of social significance. It operates also in strengthening the social spirit in the school; for it presents desirable objective ends which readily enlist the co-operation of all in a common cause.

If we introduce industries in an isolated way, we break the circuit which connects them with the real interests of life; we obstruct the path which the child naturally follows in his quest for the things which seem worth the while. Isolated industries may serve for a few years as entering wedges into the hard rock of formal instruction; they may serve to relieve the child from premature intellectual strains. But unless their larger relations to nature and man are recognized in a practical way, they are destined to the short-lived course of a "fad."

To become discouraged because teachers are not yet prepared to relate industries in a vital way is to confess ourselves unworthy of our work. Of what use are our splended educational institutions if they cannot lend a hand? Of what avail is a supervising force if it gets lost in the machinery of the educational process? Normal schools and universities can offer, in addition to the means of acquiring skill in the industrial arts, courses which present these occupations in their social setting. Candidates for the teaching profession should be trained to recognize those phases of an industrial process

which bridge the way from the natural activities of the child to the formulated statements of science. They should be provided with an opportunity to learn the social significance of the practical arts they are expected to teach.

Elaborate equipments and ample means of financial support are desirable, but not essential. Of far greater consequence is a community spirit which is consecrated to educational work. The presence of such a spirit cannot fail to manifest itself in ways conducive to normal growth, while the most elaborate equipments, the most abundant material resources without such a spirit, can be of no avail.

The use of obsolete processes in the education of the child is not a return to the past. It is rather the means of helping the child to lay claim to his social inheritance. His physical inheritance from the past is insured thru the unconscious laws of natural heredity. His social inheritance must be acquired in a more conscious way. The highest achievements of modern times, because they are a tangible expression of the social life of the people, will ever give color and direction to all educational work. But because of the complexity of the processes involved they can function during the period of elementary education only in an indirect way. In the form of real occupations on the one hand, or of abstract statements on the other, the highest achievements of modern times are clearly out of the child's reach. Yet, because his simple occupations have been selected with reference to paving the way to them, because he is constantly feeling their influence in many different ways, they function as ideals which lead the child on and on, and which relate him to a larger life than he is yet able to make real.

II

G. STANLEY HALL, PRESIDENT OF CLARK UNIVERSITY, WORCESTER, MASS.

The principle that the child and the early history of the human race are each keys to unlock the nature of the other applies to almost everything in feeling, will, and intellect. To understand either the child or the race we must constantly refer to the other. This same principle applies also to all spontaneous activities. Thus in seeking the true principles of motor education we must not only study the plays, games, and interests of the child today, but also try to compare these with the characteristic activities of early man. While we cannot yet compile from the vast field of anthropology a very well-ordered account of the most common activities in the successive stages of human evolution, we do know some of the most central.

First, perhaps, come those connected with food—fishing, hunting, domestication of animals, agriculture, preparation, cooking, and eating. Then comes clothing, involving the treatment of hides, furs, weaving blankets, making covering for the head and feet, also ornament and decoration. The evolution of shelter from caves, tents, and huts to elaborate dwellings of every

kind, also the industry of making utensils, weapons, implements of worship, idols, dolls, masks, chipping stones, molding clay, pottery, carving, painting, sewing, etc., belong here. Hunting once played an enormous rôle during a long period when it seemed doubtful whether man could make himself lord of the animal creation. He pitted his intelligence against that of brutes: devised ambush and pitfall; furtively watched, tracked, chased; fought at close quarters with fists, spear, and club, then with bow and arrow; and when he conquered game, feasting and orgy followed. Fiercer animals preyed upon him and made days, and especially nights, dangerous. Then, too, was combat with his own species, often a state of tribal war of all against all. Often conflicts were hand-to-hand, striking, thrusting, throwing, with ruse and deceit, night work, long flights, pursuits, and great fatigue in the cruel struggle for survival. Social organizations probably sprung from the family and developed into the tribe. Property, at first communal, grew individual. Worship was often highly elaborated, and often focused in sacred dances and initiations. Education began in public induction of young people into the tribe, and often lasted days and weeks, when the legends which constituted the caladium of the tribe were rehearsed by camp-fires. This, or something like it, was primitive life, and lasted probably for thousands of years, or far longer than the historic period.

There is much in this rich and variegated life that still charms, not only philosophers; but busy men and women, who live in summer camp by forest or mountain, love to slough off all the weight of responsibility and the mesh of convention and the drudgery of modern industry, and literally re-create themselves by reversion to primitive conditions. But in children, especially, most of their lives consist in rehearsing this rude history of their race. The most persistent plays and games are not, as Gross says, practicing for future occupations, but are nothing but repetitions in abridged and sportive form of the serious occupations of their ancient forebears. The best definition we have of child-life is that it is early human occupations epitomized; for the child relives the history of the race in his acts, just as the scores of rudimentary organs in his body tell the story of its evolution from the lower forms of animal life from which he has inherited his every organ and tissue. Let us, then, grasp the vast and significant fact that wherever we find any interest, instinct, or impulse to act that is strong and spontaneous, it is always an expression of the momentum of the past. The all-dominant, but of course mainly unconscious, will of the child is to relive this past, as if his early ancestors were struggling in his soul and body to make their influences felt and their voice heard. Why does a city fellow fish all day on a log and not get a bite, and go home happy and refreshed? It is because his remote ancestors were piscatorial Isaac Waltons. Why does a high-school boy love to rise at a football match and lead the college yell till his face grows red and his jugular vein threatens to burst and your ears to crack, or paint the town red at night after a school victory and appear limp and fagged next day in class? Why

does a crowd gather to see a fight or scrap? Why do boys form gangs or dawsies and love societies with inane secrets? And why, at close of school, do children relapse thousands of years down the philetic ladder in all their activities and zest? It is because every kind of sport and most of the momentum of youthful life, mental and physical, hark back to antiquity in our "young barbarians at play," and because, compared with all this, sedentary life and school books are really so very new, hard, and strange.

Now, every industrial curriculum must respect this vigorous and antique interest, and seek here, not all, but a very large part, of its momentum. The younger the child, the more important is this factor; and the older the child, the more is he capable, without injury, of conforming to modern industrial needs and adjusting his heredity impulses with the practical demands of his future life. These ancient motor impulses constitute the liberal and humanistic factor of industrial education, and give to everything that appeals to it a strange but strong reinforcement. Thus the prehistoric period must and will recapitulate itself in every young life. Of course, some of its influences are old, weak, dim, while others are strong and imperious. In some individuals certain tendencies of this Lemurian age are potent. They explain the great difficulty of making work regular in time and continuous, because this is not the way the savage works or plays. City life tends to minimize, if not eliminate, many of these ancient influences, while country life favors their unfoldment. In some they are abnormally strong, and their influence is seen in many a form of insanity and arrest. The best school in modern times for all-sided motor education is the old-fashioned form with its scores of industries and its outdoor active life; and next to this come, perhaps, some of our best industrial and agricultural schools.

What, then, can the school do?

First, it can realize that natural activities and at least many branches of modern industry are far and ever farther apart. Machinery and specialization often condemn a man or woman to stamp out one wheel or polish one pivot of a watch, or carry on one of the fifty processes of making shoes, for a lifetime. All the knowledge and skill needed can be acquired in a few days or hours by an ignoramus, and the graduate of a technical school, master of a dozen trades, would have no appreciable advantage. My class goes thru factories in quest of elements of industrial training, but our subsequent conferences show that almost every process is to be avoided as de-educational in these mills that grind up body and soul. The chief service of the school here is to postpone this decay as late as possible. Still, educational factors are occasionally found here, and when the census is complete the elements from many of them will enter into a full mosaic curriculum of motor education.

Second, we can resist the reduction of the motor side of education and magnify it at every possible point. Sedentary book work is at best in a sense unwholesome for children and always liable to be excessive. We must, then, multiply and magnify all efferent tendencies. Oral is better than silent read-

ing, and inflection and dramatic action and florid, if natural, gestures are better yet. For young children drawing is better than writing and should precede it, and large, strong movements are better than small, fine ones. Feeling and will belong rather to motor than to intellectual training. Manual training neglects the back, and especially the hips and legs which comprise more than half of the muscular tissues. Dancing is probably capable of being made the most liberal and humanistic of all forms of motor training. The primeval activities of their prehistoric forebears always impel the young to fundamental activities such as lifting, digging, striking, throwing, running and leaping, swimming, pushing, pulling, climbing, rubbing or grinding, shouting. Here, too, belong weaving, cooking, sewing, planting and harvesting, molding, making traps, barter, raising plants, and keeping pets. These activities are basal for plain work. They constitute unskilled and underlie skilled labor. A new piece of gymnastic apparatus for women, called the "kinogenerator," consists of two boards, superposed, slanting up to the hips, the lower fixed and the upper rubbed over it with considerable friction. It promises to be very popular, and to have high therapeutic value for ladies. Its charm is atavistic, for it is only a washboard with a Greek name, with no soap, water, or dirty clothes. These archaic activities belong more to childhood than to youth, but they should be prolonged. The play element often exceeds the industrial, but the former should be magnified. Otherwise the great and ever-present danger of precocity results.

Third, we must make the product the goal and focus of all. This present methods minimize. What the children make is to see, or for others, or, at the best, for personal uses that are not felt to be most pressing. The history of industry shows that always and everywhere it was the need of the thing and the desire to use it that have impelled men to make it. To forge links or chisel joints, not to be used, but for marks and precision, is one of the most ghastly of school artifacts. For every activity there must be a product that satisfies a want. Teach, for instance, kite-making and you instantly tap ancestral instincts that gush up like old wells with the secretions of ages, and besides the play instinct you vivify all the problems of a great chapter in meterology and can teach all that kites have done for science; for a boy's interests always follow the product of his hand. The same is true of tops and a long list of scientific toys. It is a pedagogic crime to make anything that has not a larger, ulterior purpose and use in itself. A mere course in tools is nothing but formalism. In the upper grammar and high-school grades a curriculum of scientific apparatus should be and is in some places being developed. The course of the manual-training high school, I know, is a hollow thing. It should be correlated at every point with the study of mathematics, chemistry, and other sciences, but especially physics. Instead of being mere wood and iron work, there should be less methodic exercise in many other activities, such as glass-blowing, rudimentary processes of rubber, leather, paper, and pasteboard, soldering, and elements from brass work,

typesetting, book- and shoemaking, etc. The motor-minded boy would learn far more physics if there were less mathematics, but more manual construction, if only of scientific toys, so marvelously developed in Germany, many of which are masterpieces of mechanical and scientific simplification. These instincts, as old as the cave-man, that have been gathering momentum ever since, can be so turned on in boys as to bring them to the very heart of the problems of our industrial age.

Lastly, we must avoid much exactness, accuracy, and finish, suspect every course that is over-methodic or claims finality, because the problems of industrial education are mostly before and not behind us. We are at the beginning of a vaster movement than mental training, as the will is larger than the intellect. Years must pass, and many schemelets flourish and fade; many a theory now lush with life, and others yet unborn, must molder like corpses to enrich the soil about the roots of the tree of knowledge before it can bear its precious fruitage. I expect no final solution of these great problems in my life or in yours; but perhaps in some boathouse on the Styx we shall sometime hear this world has learned how to educate itself by work, and made what more and more men now agree with Scripture in thinking a curse into an unmitigated blessing.

III

LORENZO D. HARVEY, SUPERINTENDENT OF CITY SCHOOLS, MENOMONIE, WIS.

By the term "industries," as used in the subject upon this program, I understand is meant those activities which may properly be employed in the training of the hand and in the mental training which necessarily accompanies any real manual training. Until recently the industries, as used in this sense, have had no place in the early education of children except as they have come into play outside the schoolroom. The fact that this topic finds a place upon the program, and has been discussed by the distinguished people who have preceded me, is evidence enough that there has been a change in educational sentiment which has resulted in a demand for the employment of hand-work as well as brain-work in the systematic education of children.

I take it that this demand has come, not alone from a consideration of the natural activities of children, but from a consideration of what the activities of children ought to be for their best development. The place of this subject in the education of children should be determined as the place of other subjects has been determined.

Reading, writing, and arithmetic, the time-honored "three R's," and the other subjects found in the elementary course of study, have found a place in the training of children, not because of any elaborate studies of children's natural activities, but because of a study of the activities of mankind in general, of the activities which the child of today will be called upon to exercise in his maturer life. I take it that up to the present time the subjects, and

the phases of subjects, which have been employed in the education of children have been settled by a consideration of what is needed to prepare them to meet the demands which the exigencies of life will make upon them. The demands upon the individual in the industrial and in the social world have been larger factors in determining what shall find a place in his education than his natural activities have been.

Broadly stated, the needs of the child, present and future, growing out of the demands of society and of the nature of the human being, have determined, and in my opinion must continue to determine, *what* shall be the material with which he is to be employed in the process of education. The activities of the child at any given stage of the educative process, considered from physical, mental, and moral standpoints, become a factor in determining *what of this material* shall be used at any given time, and how it shall be used. The child's activities today may be taken as an index of that which interests him today, and not of that which may interest him.

The education of the child has for its purpose his development thru environment largely, but thru environment as shaped and molded by the demands of society. In a large measure education is a modification of environment, and this modification is brought about by influences external to the child being educated. Our entire school system is a modification of the natural environment of the child, coming not solely, or even largely, from a study of his activities, but from the experience and judgment of society as to his future needs as a member of that society. Keeping in mind that for which the child is to be prepared, not in any given industry, but as a useful member of society, as fixing the aim, and what he is prepared for now, as determining what is to be done today of the things which are essential to be done for the working out of the aim of education, it follows that, if the industries are to find a place in the training of the child, then his present activities at any stage do not furnish a proper basis for the determination of what industries are to be employed, but only of those industries which are to be employed, *what* shall be employed now, and how they shall be employed.

The different subjects which find a place in the elementary course of study are there because of their need in the proper development of the child for the activities of life. Whether any subject shall find a place in the elementary course of education or not is determined by its utility value and its training value.

I use the term "utility value" here, not in the broad sense in which it might properly be used—that whatever results of value from training is, by reason of that fact, of utility to the individual because of the added power resulting from the training; but in the narrower sense of usableness in the productive activities of life.

The value of any study to a child results from the usefulness to him in later life of the facts of that subject, and of the development of power to use these facts intelligently, and to assimilate and use other facts thru the training

resulting from the study of that subject. In some subjects the utility value is much larger than in others, and it is not true, as has sometimes been assumed, that the less the knowledge or utility value of a subject, the greater its value for training.

In the early stages of the education of the child the utility value of the subjects taught is determined largely by their usefulness in the interpretation of the symbols of further knowledge and in the mastery of that knowledge. The training value is determined by the character and extent of the resulting development of the powers of the child which most need development for the proper unfolding of his capabilities. As a matter of course, the work required of the child in any subject at every stage of the educative process must, in extent and character, both as to matter and method, be adapted to the capabilities of the child at each successive stage.

The general question as to whether the activities and interests of the child shall determine the subject-matter and method of education at any stage must be settled with the following considerations in mind:

1. The activities and interests of a child at any given period are not necessarily a measure nor an index of his capabilities, but may be the outcome of the accident or novelty of his immediate environment, and as transitory as the conditions which called out the activity.

2. The normal activities of children living under widely diverse social and industrial conditions manifest themselves in varying forms until they are brought together in the schoolroom; but, when brought into the school, the influence of the teacher, the reaction of each upon the other, and the new environment produce activities of a new type not exhibited in the old environment.

3. The difference in the activities of children, due to the different influences under which they have been reared to the time of entering school, renders it impossible to make these activities the determining factor in selecting the industries which shall be subjects of instruction so long as our present system of school organization continues, because class instruction is at present a necessity; and whenever the activities of each child determine what he shall be taught, then class instruction must give way to individual instruction, and this makes demands for increased equipment, for a much larger teaching force and a wider range of preparation on the part of the teacher, for an enormous increase in the expenditures, and necessarily for a complete change in our present system of school organization—a program too large for immediate, or even remote, realization.

4. The activities of children growing out of the conditions under which they are brought in the schoolroom are in a sense artificial. The child is in the school because he is sent there; he forms a part of the social organism, the school, and therefore must fit into his place in that organism, shaping his activities, not as an isolated individual, but as a member of the school society, with reciprocal rights and duties. He is here in this social organism, the

school, fitting himself for his proper place in the larger organism, society. If the activities manifested here are to be taken as the determining factor in deciding what he shall be taught, then we have changed ground and now make the activities growing out of an environment and conditions imposed upon him, the basis for our selection of the material of instruction. If we grant for one moment that the teacher or the other school authorities may impose conditions which modify the natural activities of the child, or produce new activities growing out of these new conditions, then we have granted that the school authorities, and not the child, have the right to determine the conditions most favorable for the development of the child.

Ages ago a wise man said: "Train up a child in the way he should go, and when he is old he will not depart from it." It is perhaps equally true to say: "Let a child come up in the way he would go, and when he is old he will not depart from it." I am a believer in the idea that the way the child would go is not always the way in which he should go, and that the combined experience and wisdom of those who have engaged in training the young are a safer guide for training than the impulses of the child or the accidents of his immediate environment.

The present status of civilization is very largely a result of invention and imitation—invention by the few, imitation by the many. Growth in invention is the result of a study of the new and present, and not of the old and remote. Development thru imitation comes thru imitation, not of the old and obsolete, but of the old which has persisted and shown its worth, and of the new which has shown improvement upon the old.

If the industries are to find a place in the educational scheme, it would seem that the industries of today, the outgrowth of the development of the race, rather than the industries which have been outgrown and become obsolete, should furnish the field from which the material to be used in instruction should be drawn. It may be claimed that present-day industries are too complex and too highly organized to furnish proper material for the activities of childhood. But we must not forget that the child is in contact with the industries of today; that they largely create his environment, and that he is concerned with that which is present and active far more than with that which is past and obsolete; that our present stage of development is due to the fact that every progress made has been the basis upon which further progress has become possible. In our efforts to adapt the industries in education to the comprehension of the child, we must remember that primitive industries are more remote from the child's thoughts and interests than are many of the industries of today; that it requires mental activity of a higher order to comprehend the development of industries from primitive times to the present, step by step, than it does to understand such of the present industries as may properly be employed as subjects of instruction; and that in attempting to utilize primitive industries in a scheme of education we must create a new environment and a new interest, both of which find no reinforcement in the

environment and interests of today, and both of which are foreign to the nature of the child of today.

If it be true that in the development of the individual from childhood to the maturity of his powers at the present time there is in epitome the development of the race, it will be well to remember that the strides he makes in his fifty years of unfolding are much longer than those made by the race in the thousands of years in which it has occupied the earth. And it may be pertinent to suggest that, if there be such a thing as racial instinct, the time may come when the inheritance of each child shall start him some distance along the road from the point where primitive man began his journey.

I am a believer in the doctrine that material and method adapted to educational ends, in so far as these are controlled or controllable by school authorities, should be determined with reference to definite ends, clearly perceived by those charged with the administration of school affairs, but not within the range of the child's comprehension during the early periods of training. No one will contend for a moment that the material and methods for this use should be determined without reference to the child's normal activities and powers; but that is quite a different thing from insisting that the child's activities shall be the determining factor in their selection. The character of the child's activity resulting from a stimulus supplied by the teacher, and selected with reference to meeting the child's needs and determining his capabilities, may show the wisdom or unwisdom of the selection either of material or of the mode of its treatment at that particular time, and may suggest needed modification in the teacher's requirements. It will be observed, however, that the initial point from which we lead up to the new determination by the teacher or school authorities is not the self-determined activity of the child, but the determination by the teacher of the stimulus which in his judgment will call forth the activity then needed and of which the child is capable. The resulting activity would not have appeared but for this stimulus, and the stimulus would not have acted except thru the teacher's initiative. The stimulus presented in the way of required treatment of prescribed material for definite results must be determined by the needs of the child, and the needs of the child at any given stage are determined by his future needs and present capabilities, and not by his self-determined activities.

The introduction of any particular industry into the field of elementary education—or, to be more exact, the introduction of any particular form of hand-work—can be justified if it can be shown that the mental and physical activities essential for the proper performance of the work so introduced are such activities as are needed by the child, at the time when they appear, for the proper unfolding of his powers, and that no other form of work can be given at that time which will better meet the needs of the child.

No kind of work, industrial or otherwise, can be justified because it has utility and training value, if there can be substituted for it within the same period another kind of work which has a higher utility and training value.

The great problem in industrial education today is to determine what activities of the child need development, and what lines of hand-work are best adapted to meet this need; and this will demand an examination of each particular phase of hand-work with reference to the varieties of mental activity involved in its performance and the relative prominence of each variety, and a similar consideration of the physical activities involved. It will demand, further, such a knowledge of the child's present capabilities and needs as will enable the proper authorities to adapt the work at any given stage to these capabilities and needs.

In so far as the activities of the child throw light on his powers and capabilities, they are a factor in determining what work may be undertaken, but are of more value in determining *what* of the work required as necessary shall be given at each particular stage in his progress.

AVENUES OF LANGUAGE-EXPRESSION IN THE ELEMENTARY SCHOOL

I

PERCIVAL CHUBB, DIRECTOR OF ENGLISH, ETHICAL CULTURE SCHOOL, NEW YORK CITY

Recent pedagogy is keenly alive to the educational opportunities lost to the child by reason of the changes that have come over modern life, especially the change from a predominatingly rural to an overwhelmingly urban type. It recognizes that the urban life of today is too complex and bewildering to provide a fitting educational environment for the child; and it therefore looks to the school to supply those simple and intelligible conditions which shall enable the child to rise gradually thru the typical phases of the race's development to a comprehension and mastery of the intricate civilization of today.

Special emphasis has been placed by certain leaders of educational thought and experiment upon the loss which the city child sustains by not participating in the simple activities of farm life and those home industries of earlier times which brought him into contact with fundamental human needs and resources, with nature and animals, with the tools, the crafts, and all the varied husbandry of the farm and the rural community. The loss is undoubtedly serious; and the city school is tasked to make it good as far as possible.

But there is another kind of loss which the transformations of modern urban life—in cosmopolitan and polyglot America more than anywhere else—have involved; a loss which is less recognized and lamented, but one which is even more serious from the educator's point of view, than that which I have just touched on. It is a loss of the old, popular humanities which fed the emotional, the æsthetic, the ethical forces of human nature, and of the child's nature in particular—the song, the story, the lore and legend, the lyric, epic,

and dramatic arts of the folk, which gave richness and meaning and joy to living. I refer to the arts of the balladist and minstrel, the story-teller and mummer; and the popular co-operative arts of school folk-song and dance, pantomime and play. It is the play of the world, the recreation and the art of the world, the refined enjoyment of life, that have suffered thru this loss, rather than the *work* of the world—altho that has necessarily suffered with the play. And because the child is eminently a creature of play, it is its play, and the full and artistic and vigorous self-expression which it has found thru play, that have suffered so much more disastrously than its work, whether on the farm or in the shop, in the country or in the town. The kindergarten has tried to make some amends for these losses by reviving some of the old songs and games; but it has only partially comprehended and only partially met them. Besides, the work can be carried only a little way in the kindergarten; it must be done for the most part in the elementary school.

My purpose is to point the significance of this crippling loss of these old popular traditional arts of self-expression, the folk-song and dance, the folk-lore and legend, in which language plays the leading part, and to plead for their revival and preservation in the school for the sake of their culture value, their linguistic and literary value, and their profoundly ethical value to the child. I shall keep to the topic assigned me and concern myself chiefly with their importance as an invaluable and indispensable avenue of language-expression in the elementary school. Incidentally my plea is for a better comprehension of the child's nature on the æsthetic and literary side, and for a reasonable treatment of the child as more than a mere read-and-write subject, or a mere desk-bound victim, which he is so frequently supposed to be. We must allow the child to be once again that angel of song and motion, that lyric, rhythmic, rhyming, dancing, mimicking, make-believe, play-acting creature which the child of the ages has been, and the man-child of the world's childhood has been. I am thinking of the child who has expressed its creative power in play and puppet school, in charade and in dumb-show.

But because every new educational development gains its chief significance thru its relation to some new hope for society and human development, I cannot pass on without a word or two concerning the connection between this proposal to revive the traditional literary art of the past in the schools and certain features of those changed social conditions to which I alluded at starting. The child is with us a fellow-victim of these conditions. He is not nurtured in the lore of the past; he does not sing the songs of the ages; he does not play the singing and dramatic games which amused the children of the past—for a variety of reasons too numerous to traverse here. Lack of leisure and opportunity on the part of the parents, lack of favoring home conditions, lack of city playgrounds and open spaces, are among the explanations. But it is in the spirit and the habits of modern life that we find the general cause. We adults are increasingly a book-ridden and print-ruled people. The old, hearty sociable culture of the past—the song and chorus,

the choral dance and game, the ballad and story, the play and the pageant, the festival and triumph, in which the folk of the past joyously co-operated—we no longer delight in; it is all disappearing in our individual culture of the book, the magazine, and the newspaper, in the silence of the library and the solitude of the sitting-room corner. This is an aberration, a thing to be regretted and striven against.

No one who was fortunate enough to catch in early life any lingering echoes of that past of song and story, and dance and play, in all their varied forms and combinations, can accept the bookish culture of today as a substitute. He who can recall memories of that old-time lyric overflow of life—when no May moon but was greeted with May song and dance and rite; no Christmas but brought its carols and ceremonies, its mumming and its pagent; no woodland picnic but had its balladry; no boating party but had its accompaniment of mariners' songs—he who has tasted of these delights will sadly realize that something has gone out of life which leaves it the poorer in joy, in charm, in poetic suggestiveness.

The attitude of many, who are vaguely conscious of this change and regret it, is one of submission or of sorrowful acceptance. Such, they say, is progress, and part of the price of progress. We may not see how, but we must regard the change as an incident in the beneficient evolutionary process that is leading us to better things. Fortunately, however, there are others who refuse to take the submissive and fatalistic attitude; who believe that, just as in another field our choicer spirits are trying to call back the lost virtues of an earlier time in the arts and crafts, or to return to the simplicities of the early drama, so we should try to call back those lost popular arts of song and story, procession and pantomine, commemoration and festival, procession and pageant, which have declined among us—call them back for all, but especially for the children for whom such things have a delight, and an educational value, which can be gained in no other way.

It is in the home, the family circle, the neighborhood group, that one would fain see this revival take place; but it is not to be expected to begin there. The school must take the initative; and it must for some time to come make good the absence of these activities outside the school. It is a fact that few children bring with them to the school any store of the old traditional songs, games, and rhymes. Even the "Mother Goose" rhymes are almost unknown; and the old singing games, weather rhymes, proverbs, are fast fading out of memory. The literary savor which they communicated, the literary vocabulary they helped the child to amass, the sense of rhythm and the feeling for rhyme, for alliteration, for onomatopœia which they developed, the average child of today knows not.

The introduction into the school of primitive industries and the study of the life of primitive peoples fortunately widens the opportunity for the natural introduction of many of the old rhymes and songs and games that bear the impress and express the activities and the spirit of earlier times—old generali-

zations about the weather in the weather rhymes; old songs and charms with which the choosing and weaving were carried on; the old, deep wisdom of the prime and its weighty counsels embodied in proverbs, adage, and epigram.

The leading principle to be borne in mind in using this material in which the creative activity of childhood has expressed itself is that the little child's forms of expression, like those of early man, are composite. Words are associated with song, dance, gesture, and dramatic mimicry. The "Mother Goose" rhymes, and all those of kindred nature, suggest and support this fact. Many of the nonsense rhymes are merely excuses for keeping going the tunes to which children danced when there was no fiddler to scrape or piper to pipe a jig or a round. Such are the excellent polka-like tunes associated with such jingles as:

One, two, three, four, five,
I have caught a fish alive . . . .

My mother said that I never should
Play with the gypsies in the wood . . . .

Polly put the kettle on . . . .

Katie Beardie had a coo . . . .

With these dance measures we may include marching songs of various kinds, slow and quick, solemn and gay, to which rhythmic emphasis was added by the clapping of hands and stamping of feet. Some of the rhymes and tunes already cited may be adapted to this purpose; and others, like the charming old "Oh, dear, what can the matter be?" lend themselves to the same purpose.

Of a more developed species are the singing games, of which the still surviving "Here we go round the mulberry bush" is the classic example. It is in reality a choral dance; but it is more—it is an imitation game; and, best of all, it calls for improvisation from the players. It used to be a point of pride with each child to initiate a new and original type of activity. "This is the way we dance a jig," ". . . . play at cards," ". . . . play at dog" (crawling on all fours), etc.; "London Bridge." "Orange and Lemon" (the first favorite in my childhood) and "Green Gravel" are somewhat similar; but pass over into the more dramatic species to which "The Rovers" and "Old Roger is Dead" belong. Many others of this class may be found in the two most available and useful collections of Mr. Newell (*Singing Games of American Children*, Harpers) and Mrs. Laurence Gomme (*Children's Singing Games*, Macmillan); and it may be remarked that a fascinating interest for the teacher is given to those games by the historical explanations furnished in the notes. These examples will also suggest dramatic treatment of other well-known numbers; for example, a dramatic choral treatment of "A frog he would a-wooing go," in which the lines assigned to the frog, the mousie, etc., may be sung and acted by the proper *dramatis personae*, while the chorus chants the refrain "Heigh-ho, said Roley," and dances its choral dance at the con-

clusion of each stanza—"With a roley, poley, gammon, and spinach"—in a ring around the actors.

These old games, and indeed most of the material to which I refer, should be known to the child as it was known and transmitted by the children of the past, traditionally, unassociated with book or print, with lessons or recitations. It is what we call nowadays oral literature. In the same manner should the great popular ballads and lyrics and stories live vitally in the auditory memory of the child, nestle in the lyric heart of childhood without any recall of text-book or class exercise. In that way have they retained, as Mr. Newell notes, a certain freedom and quaintness and fluidity. They exhibit, as he puts it, "a tendency to vary in detail, while preserving the general idea, which distinguishes living oral tradition from the monotonous printed page." And this fact warrants and encourages further simple modifications of these old singing-games to suit modern conditions and the addition of new ones.

Furthermore, it suggests original imitative work on the part of the children. Rhythm and rhyme challenge imitation and improvisation; and only those who have dealt freely with children after the manner here suggested can know how easily and surprisingly imitative effort is kindled, and of what little flights into the magic world of verse children are capable. This is no plea for the neglect of that "other harmony" of prose to which the ear is being accustomed by the story-telling and the proverbs and maxims that are classic in form. It only gives that priority to rhythm which it has had in the history of the race's artistic and literary development.

It is manifestly impossible in the time allowed me to explore much of the territory into which my main contention would lead; and I must glance only at a few of the points of leading importance.

In addition to the songs and singing-games, there is a wealth of material that may be garnered for daily use in the schoolroom which touches with a gracious or quaint, a fanciful and sometimes an imaginative, significance the eternally recurring incidents of daily life—such stores as are laid open for plunder in Northall's *Popular Rhymes*, Furnivall's *Nursery Rhymes*, Brand's *Popular Antiquities*, Chamber's *Book of Days*, etc. They take us back to the time when any slight occurrence—the alighting of a moth or a lady-bug, the sunshine showers, the braying of an ass, the early appearance of a flower or a bee, the detection of a mole on the neck or a speck on the finger nail, the advent of a new month or a wedding-day or birthday, a red-letter feast-day or saint's day, on the calendar—started a couplet or a verse which garlanded the occasion, as it were, with a fragrant posy of rhyme. We would lay stress on this kind of traditional literature as valuable for educational purposes chiefly in the quickening of the fancy and imagination, in redeeming what is ordinarily vulgar commonplace from its flat ordinariness. What little touch of gracious protest is there in the old familiar greeting of the threatening rain:

Rain, rain, go away!
Come again on washing-day.

or in such variants as:

Rain, rain, pour ye down,
But not a drop in our town.

or

Rain on the grass, and rain on the tree,
And rain on the housetop, but not upon me.

or the greeting of April's first showers in the ancient "March winds and April showers," or this variant:

The bee doth love the sweetest flower,
So doth the blossom the April shower.

The writer vaguely recalls the large number of verse formulæ associated with the play and the games of his children, scarcely one of which, with the exception of the lingering counting-out rhymes, does he hear in this country nowadays. Play was often started by the old song summons:

Boys and girls, come out to play!
The moon doth shine as bright as day.
Come with a whoop and come with a call;
Come with a good-will, or come not at all.

Races were started either with the,

One to make ready,
Two to be steady,
And three to be off!

or better still with the fanciful jingle:

Bell-horses, bell-horses, what time of day?
One o'clock; two o'clock, three starts "away"!

In the game of hide-and-seek the children who hid called out when ready, "Cuckoo," and the seeker made answer before starting on his quest:

Cuckoo, cherry-tree,
Catch a bird, and bring it me!

But the culmination of rich possibilities in the beautiful and creative use of this traditional material comes with the great festivals of the year—above all May Day and Christmas, days that may be made fragrant with many flowers and sprays of evergreen from the fields of old folk-lore and folk-song. What sheaves of May songs and Christmas carols may be garnered from these antique fields! And how suggestively may they be used in connection with the revival of old rites and ceremonies—the May-pole dance and May-queening; the Christmas mumming and pageant. But here is a theme too large for my present pen, and I will only indulge myself with the quotation of two stanzas of a traditional May song that gives the sort of aroma one would fain have the little ones enjoy on their first morn of May:

The flowers are blooming everywhere,
O'er every hill and dale;
And oh! how beautiful they are,
How sweetly they do smell.

Go forth, my child, and laugh and play,
And let your cheerful voice,
With buds and brooks and Merry May,
Cry out, "Rejoice, rejoice!"

And now I shall try to meet some points of criticism and skepticism very briefly in the form of a few succinct statements.

By following this line of exercise we are basing the literary and expressional work of the school upon the education of the ear and the tongue, and upon the use of models—often rude with a primitive rudeness of form, but as often touched with the charming quaintness of primitive art; models which are therefore especially suited to the young child. I assume that the teacher works for neatness, clearness, and refinement of utterance; works suggestively and artistically.

Expressiveness in the creative sense is called for from the child thru the constant demand for dramatic interpretation, or symbolic and emotional interpretation, thru movement, dancing, gesture, and mimicry; also thru the demand and challenge for improvisation and imitative work.

When there is associated with this work the other great line of major work, story-telling, with the reproduction by the children of the stories and incidents and personal experiences, with occasional invention of original fancies, we cover much of the whole field of literary forms, and the child has in germ every literary principle and type which the various classic forms of literary expression embody.

This is the only kind of literary culture possible to the child in his pre-read-and-write stage—roughly up to the fourth year of the elementary school, before he has attained to facile use of printed page or of pen. But this kind of work should be continued in the upper grades, the traditional game, story, song, ballad, and dramatic presentation being employed continuously and with increasing development.

It is a phase of development thru which the great primitive peoples of the world passed—notably the Greeks, the development of whose wider forms of the choral dance into the well-articulated species of drama, epic, and lyric will throw a flow of helpful light upon this subject, and upon the way in which it should be carried on in its higher forms.

And now, in conclusion (with so many things left unsaid), let it be frankly admitted that to give effect to these suggestions means some changes in school practice—in the schoolroom and the school program. It means something of a liberation of the much-abused child from the tyranny of the desk. It means marching, playing games, the song-dance, the little drama, the freedom of improvisation and spontaneity. It means a generous open floor space for the games and the story circle. It means much more "play;" but that is a much-misunderstood and much-abused word. A little child's play is a very serious matter, akin to the playwork of the artist. Let Mr. Newell speak a true and wise word for us in this connection:

The performance of a round or the conduct of a sport was to youthful minds a matter of serious concern—a little drama which could be represented over and over for hours; in which self-consciousness was absorbed in the ambition of the actors to set forth properly their parts. The recital had that feature which distinguishes popular tradition in general, and wherein it is so poorly replaced by literature. Here was no repetition by rote; but the mind and the heart were active, the spirit of the language appropriated; and the vein of deep though childish poetry nourished sentiment and imagination.

Mr. Newell goes on to say: "It seems a thousand pities that the ancient tree should not continue to blossom." That is the sentiment which animates my present plea and argument—the hope that, ere it is too late, a little tender nursing may help that ancient tree, so deeply rooted in English soil, the explanation of England's poetic riches, to blossom again and feed the children of the future with its fragrance and beauty; the ancient tree of a popular poesy that for grace, courtliness, and sweetness is unmatched; "a cry of delight in existence," it has been called; the child-heart's celebration of the joy and charm of life. But, to quote Mr. Newell again:

The vine of oral tradition of popular poetry, which for a thousand years has twined and bloomed on English soil, in other days enriching with color and fragrance equally the castle and the cottage, is perishing at the roots.

The school and the school-teacher have a chance to stay the ruin; a chance to infect the world again with the old poetic passion; a chance to use the splendid heritage at once to redeem our speech from barbarism and vulgarity; to educate ear and tongue to higher standards of comely and dignified language; to feed the lyric impulse, the heart, the fancy, the humor, the imagination of the child, so that he may attain more nearly to the image of wholesome and refined manhood.

II

MISS DELLA JUSTINE LONG, STUDENT IN EDUCATION, UNIVERSITY OF CHICAGO, CHICAGO, ILL.

In considering the place of language in the school the fact presents itself at the outset that there is no significance in language apart from the function which it serves; that there is, in fact, no such thing as language by itself. For language has grown out of the instinctive desire for expression which is so great a part of the social nature, and out of the evolving needs of man which could be met alone thru communication. Wherever conditions of social intercourse exist language must inevitably develop. It is a pervasive element of human life, running out from every part of our thought, feeling, and activity.

It is with the aim of perfecting this natural growth that provision is made in the school for language study; but the limitation of this provision to a few lines of subject-matter and to certain periods in the day is made in view of the restrictions imposed on the public school by its size, not of the true function of language or of the natural process of its growth. Such restriction

is, perhaps, necessary; but these special "avenues" which we are forced to select serve their purpose only in so far as they grant the same reason for language in school as in the world at large; that is, a desire in the individual to communicate some part of his own interests or to share those of others. The term "expression" sometimes seems to imply the mere putting forth of thought, but it is impossible to conceive of any natural expression whose very reason of being does not involve relations with others.

The primary period is the time of all times for language development. During these years the social and other objective interests which express themselves largely thru language are at their height; the time of reflective thinking, when independent effort increases and outward expression becomes less necessary has not yet dawned; nor have the reserve and shyness of the later years of childhood developed. This is the time when children love to talk. They come into the distinctive inheritance of the race in the most direct way possible, by plunging into the use of language just as soon and as fast as the need for it is felt.

The two factors in this acquisition are the hearing of speech and the child's own speech utterance. The two work together, the utterance objectifying the auditory images, testing them over and over, and so developing and co-ordinating the speech organism. All thru this period the ear is the organ of sense-appeal. It is the organ thru which the feelings are most stimulated—and this is the time when feeling is the dominant force—and the only means by which direct contact with language is reached.

On this basis an earnest appeal is made for *oral* expression in the primary school. The interpretation of symbols thru the eye is a later development, and the writing of these symbols adds to the complication. Reading and writing have their beginnings in the primary school, but they depend upon a free and continuing use of oral language and are only the outgrowth of it, and a small outgrowth, all thru this time when the foundation itself is forming. It is not unusual, however, for much of the "language work" even in the second and third grades to be written. Aside from the reversal of the natural order in this, the nervous strain is very great in the effort for mechanical accuracy before either muscular growth or general co-ordination is equal to the task.

As to the content of what is expressed, if we believe that language has educative significance only in so far as it helps to carry on activities of the life of those who use it, the question is answered. Then any interest or activity native to the child of the primary school is a natural avenue for language expression. So far as we allow the children to increase our knowledge of what these inherent interests are we have an increasing basis of choice.

First of all is the absorption in the objective working out of life, play, and the constant doing of things. From this clue the hand-work and co-operative construction in the school have grown. And in all this, language is the natural accompaniment. Making the playhouse or the garden, modeling a village

or weaving a basket, demand interchange of ideas, the explanation of plans and means, and the social intercourse in itself so essential at this age. Nor is the language in connection with all this merely haphazard. The direction given, however, arises from the demands of the activity itself. For example, success in results is found to depend upon saying exactly what is meant; an increased vocabulary is needed; and interpretation of plans and directions and records becomes necessary.

This same kind of activity, altho without so much organization, fills the child's life out of school, and it is only fair that he be given in school an opportunity to talk and hear about what is of the greatest possible importance to him. The story must always be a source of inspiration for the child's growth in language, if only for the reasons that it is an inherent demand of the little child and that it allows him to hear the language spoken; for the need of hearing a very great deal of speech can hardly be over emphasized. That the language he hears be of the best and beautifully spoken is most essential, since his ear will never again be so susceptible to nice differences of pronunciation and enunciation. Because a child loves to hear a story over and over, it does not always follow that he is ready to retell it himself. Part of his enjoyment lies in the story-teller's mastery of the language and in the sound of the words, and largely thru the simple and beautiful language of literature that first vague sense of beauty and delight in artistic expression is to begin. When the thought has been so absorbed that the child has a desire to express it again to others, and when he has sufficient language control to do this with satisfaction to himself—that is, without self-consciousness—the retold story is not mere reproduction, but becomes something given by the child himself.

The aims of the literature in the primary school are often largely defeated by demand for constant reproduction, especially by the great amount of written reproduction in the upper primary grades. We have all seen classes, after reading or listening to a fine story and proving by their discussion an appreciation of its essential meaning, turn listlessly to the writing of it. There would seem to be more reason, and so more inspiration, in the simple compositions which have their origin in what the children themselves are doing, as has been suggested, and in certain phases of the nature study.

Since the elementary science deals with relations whose acquaintance the child makes for himself, it is inseparable from language, for language is a most convenient and available tool for probing into the facts of the real world about which children are so curious. There is one tendency in the treatment of the nature study, however, which detracts from its value as a means of language development; that is, dealing with the various nature elements in terms of human experience and human relations until those terms become merely conventional symbols.

The primitive poetry in giving human feeling and purpose to the wind, streams, storms, etc., is fundamental in the race and often appears in the

child's own interpretation of nature; and certainly the little child understands the nature processes by analogy to his own life. But to continue too long the phraseology of the early nature study seems highly artificial. The imagination of the child is not appealed to by the mere giving of unreal names to familiar objects. His fancy rather enables him to conceive of unseen forces as realities, and to compass great stretches of time. In a way he is better able than are we to grasp the story of the great building process that began the earth, and made the rocks or the soil. Such subject-matter, dealing with the very processes of life itself, has peculiar fascination for children, and the language thru which it is thought out must, from the nature of the thought-content, be charged with vitality and fulness of meaning.

Altho there is a universal theory that language-training below the high school should come principally thru the work and the life of the school as a whole, a large part of the time assigned to English is still devoted to the study of grammar. That the reward of much of our grammar study is so slight is largely due to the fact that our English grammar still rests on a Latin conception. The inflections have largely disappeared from English, and still many grammars continue to regard them as an important element. When the time comes for the study of the relations between words, sentences, etc., we should be able to presuppose a considerable power of abstraction in the pupils. Much of the grammar prepared for the grades nevertheless goes beyond the power of students below the high school. That the study of the science does not assure ability to use language is shown by the meagerness of language, both spoken and written, of students who have been brought up on grammar, but who have not been accustomed to express themselves freely or to hear good, efficient English. The premature study of structure, moreover, given before experience with realities has been sufficient to develop interest in structure, prejudices pupils against a study which should have value later. This does not imply a disparagement of grammar study. I only mean to say in this connection that my observation in the ntermediate and grammar grades has not made clear the relation between a knowledge of the technique of language and a full, free development of power to use language.

There is, to be sure, more need of form study in the upper grades, since the increasing field of thought brings need of understanding the possibilities of language for expressing finer differences of meaning. But this knowledge of structure can come only thru considering the word or sentence in the closest possible relation to the thought it conveys. If the child could once understand that he studies the relations between words because he can thereby make them a more efficient medium for his own use, not because there is a system of relations inherent in the words themselves, the feeling of remoteness, of unreality, about this technical study would surely be lessened.

In the upper grades literature and art have a still larger place in bringing in both the thought of the great world and models of perfect expression, and often the poem or picture, when it has served this purpose, is made the basis

for testing some bit of the technical knowledge just referred to. For several reasons this is an unfortunate use of a work of art. There is a great dash to the feelings in dropping suddenly from the inspiration of something beautiful to a survey of the outer form of that beauty. To make a list of nouns from a stirring poem not only diverts the purpose of the poem, but brings a disfavor upon the nouns which they do not deserve; for interest in them can come only thru learning of their use, and this is to be discovered in the very act of their service, not in disembodied lists.

When pupils come to a conscious scrutiny of language, the cultivation of a feeling for the word that gives just the shade of meaning or the full force of an action; learning to appreciate the greater strength in directness; the habit of clear imaging; recalling parts read which have made special appeal—all this goes with the discussion of acts and motives and the use of personal experience in interpretation. The habit of imaging is most important in the development of language thru literature. This means, of course, not merely visualizing, but includes all the unconscious motor expression so characteristic of children.

At this time, when verbal memory is at its height (that is, in the intermediate grades), the beginning of a permanent literary store may well be made, but there is a dissipation of energy in "learning by heart" anything that does not come within the true meaning of that phrase. If we could reduce the number of fragments committed to memory, choosing instead a smaller number of entire poems, we should, perhaps, be surer that they would last as a permanent source of pleasure. A small girl of my acquaintance innocently alluded to the "memory jams" she had been learning, little appreciating the fitness of her phrase.

If we were to sum up our perplexity over the written work, would it not be that the results show perfunctory effort? There are, of course, always special cases where genuine interest is unmistakable, but, on the whole, it is clear that the aim of the written work is to make the use of correct form habitual. When we attempt to explain the lack of spontaneity back of the written pages, we are again confronted by the futility of pursuing language culture thru the composition as a means in itself. This is made plain by the fact that when the child recognizes a genuine reason for his writing, it becomes a genuine effort on his part. This does not exclude the observance of correct form, but makes it a subordinate part of the aim. So long as there is a real interest in the writing from the child's point of view, the subject is a minor matter. But writing for the sake of writing, on the theory that "practice makes perfect," precludes the motive which alone gives language value. There must be some outcome beyond the page written; for example, the letter that is really mailed to someone with whom the writer has a personal relation of some kind, not merely an artificial, literary relation.

Individuality develops rapidly during the grammar-grade period. New interests are springing up continually. The subject assigned to an entire class appeals less and less, which adds to the problem of selecting subject-matter

that shall meet with a genuine response. This suggests in part the solution of the difficulty, namely, that we reduce the amount of written work. In support of this is the fact that pupils at this age are naturally conservative. Free, easy expression is no longer characteristic. And while the self-consciousness and the shyness and awkwardness of expression are quite apparent, the increase of mental activity and of assimilation are not always so clearly recognized. It is a time of absorption and storing up, and all that is assimilated will appear sooner or later in increase of individual strength.

Summing this up, the communication of the native interests, worked out thru all the activities of the elementary school, is the natural basis of the language; and the educative value of language-training rests on a recognition of the fact that the thought-content and the interest in communicating or receiving that content alone give meaning to language. The primary aim in the language of the elementary school is the development of power to say freely what is pressing forward for expression in the child's mind. The aim in the study of structure is that language may become a more efficient means for this expression.

The basis of all language-growth is oral expression. This is but saying that language is not merely a system of symbols which the child is to regard as already organized outside of his own life, but that it is a part of his own mind and heart which is to grow as he grows.

III

FRANK W. COOLEY, SUPERINTENDENT OF SCHOOLS, EVANSVILLE, IND.

Two prominent points of weakness in language-teaching are more or less responsible for the failure to secure satisfactory results. The first is a neglect on the part of teachers to make use of the proper material; the second is the undue emphasis which is usually placed upon the mechanics of language, to the exclusion of those vitalizing and life-giving qualities which naturally belong to the subject.

Language is an expression of thought, and should be based upon the natural interests that cling to the concrete. Consequently it should be the aim of the teacher to summon to her aid the material things with which the child is surrounded, and in which there is a natural interest. The story, presented in an intelligent and interesting manner, is the usual basis for the work. But if the teacher is content with this simple and narrow phase of the subject, interest will soon lag, or at best will be forced and unnatural.

Again, much of the training given in the elementary and secondary schools, and even in the higher institutions of learning, is weak because the principal effort seems to be directed toward a thoro understanding of the related parts of sentence structure, regardless of the fact that ability to use language correctly is of vastly more importance. It is therefore not an unfamiliar experi-

ence to find teachers and pupils engaged in a sort of hide-and-seek process, endeavoring to trace some allusion to its ultimate source, or spending hours of valuable time in an effort to unravel some complicated grammatical construction which in itself possesses little value, while the appreciation of the beauty and power of the selection taken as a unit, and which should be adopted as a model, is entirely neglected. We too often forget that appreciation comes from companionship, and that this is as true in the field of language or literature as in the social world. We also forget that much loss comes from a too careful analysis. The beauty of the rose vanishes when the dissecting process begins. The power of a poem eludes all effort at analysis. It can be found only by taking the poem in its oneness and drinking in its beauty, depth, and power by a study which omits useless details and looks only for the great truth which it unfolds.

In all language effort great care should ever be present to develop the language-sense thru models of expression. By language-sense is meant that delicacy of training which will detect the incorrect and faulty language as quickly as the ear of the trained musician detects discords. The aim should be to teach the use of correct and even elegant speech, even tho the science of language be utterly ignored.

Language work, when compared with almost any other subject taught in the schools, shows the least results for the time and labor expended. We expect efficiency in oral and silent reading; we aim for accuracy in arithmetical computations; we hold pupils responsible for historical dat: and for correct geographical notions; but when it comes to the use of the English language, we are prone to excuse faulty diction, including poor spelling, and ungrammatical expressions, and we scarcely hope to teach pupils to use the English language with any degree of fluency or accuracy.

The first effort in the teaching of language-expression is corrective. This is due to the fact that children enter school with some well-defined habits formed which, unless changed, will forever stand as a barrier to progress. This is a crucial point in the proper development of the language-sense, and later in the formation of correct habits of speech, both of which are essential to satisfactory results.

In the subject under consideration, language-training is broader in its scope than is usually implied. Language as an expression of an idea may not only be spoken or written, but it may be expressed thru bodily activities, as in some forms of dramatization, or by the products of the hands, as various results of the manual work. Abundant material is thus at hand as a basis for language-expression, and it is the wise teacher who knows best how to trace the work thru these various avenues.

In the most elementary work the reproduction of stories thru dramatic art is effective, thus calling into play the activities of the children. By this means interest is whetted to a keenness often lacking in other methods, while the result is clearly an effort in language-training. Running thru all dramatic

effort should be freedom and spontaneity, which will lend zest to the work and insure the greatest mental activity on the part of the learner. In the lower grades of the elementary school there should be oral reproduction in abundance. An excess of written work at too early a period results in mental paralysis. This oral work should be based upon stories well told by the teacher. The preparation of the teacher should be so thoro, and the presentation of the story so complete, that interest will be manifested from the first. Unless there is interest, the reproduction will be formal and lifeless.

The various hand-crafts are but another training in language, and should be recognized and utilized as such. Modeling in clay, in which the deftness of fingers reproduces the story with the same exactness that is found in oral expression, is practical. This method not only gives an opportunity for the play of the inventive powers, but increases interest, because the child is dealing with the concrete and with the work of his own hands. This work should be so definite that a glance reveals the story which the child is reproducing by means of the concrete. Drawing should also be linked with the work in language, and the charcoal, the pencil, and the brush, in color work, should each add its message. Paper-cutting, when the aim is the actual reproduction of the story, becomes a powerful instrument in language-expression. As a medium of thought or of the interpretation of an idea it is very closely related to modeling and drawing. The knife in cutting, as well as the more advanced work in manual training proper, should be made an adjunct to language-training, with a reversal of method.

In the lower grades the finished product of the hands tells its own story; in the higher grades written descriptions are based upon the work of the hands. I know of no more interesting phase of language-expression than that which finds its source and inspiration in the work of the hands, with an opportunity on the part of the learner to give an account of the growth and development of this work. Children love to do, and they also love to talk about the work of their own hands.

Written reproductions should also be accompanied by illustrative work in color, each supplementing the other. In all of this work freedom should be given the individual to construct or reproduce that which he sees, and as he sees it. The test of the method will be found in the variety of results. Uniformity will be evidence of too close contact with the teacher, and the work will represent, not the child, but the teacher *and* the child; it will be a composite, and this should be avoided. Criticism here applies very forcibly to much teaching in which finished hand-products are desired. Teachers are over anxious to have pupils present finished products. Indeed, in many schools the work in all the manual arts is so perfect as to give conclusive evidence of too close directive effort on the part of the teacher. A good motto is, 'Let the child alone." Give him an opportunity to express himself, and this can be done only by the teacher keeping hands off. The value of the plan suggested lies in the fact that the children are dealing with the concrete, with

the products of their own hands, while, incidentally, they are receiving thoro training in expression.

Important as are these various avenues of expression, the time comes when the ability to extend the work in language-expression, and the power to recognize and to use choice English, will come mainly in two sources: first, the English of the teacher; second, companionship with the best there is in literature.

The form of language is based upon imitation and is the result of habit. This being true, it should be the constant aim of the teacher to seek thru imitation to train pupils in the formation of correct habits of speech. To this end, the teacher's language should be faultless—a model. Choice English should be read in abundance. Language should be a universal topic. Freedom of expression should be fostered, opportunity for variety in expression should be given, and the aim should be a cultivation of the language-sense. The last two are constant and broaden the subject, language, until it compasses literature proper. The work in English should be controlled by unity of purpose and dominated by unity of spirit. At this point there is often found a marked weakness. Children should be brought early into contact with good literature, and they should be taught to know it when they see it or hear it, and then to love it. Good, choice English—English of books, and the English of the teacher—should be a constant companion, and in time the English of the children will be worthy. Good literature, like a work of art, should be studied, not once, but again and again. Enjoyment comes not from a glance, but from frequently recurring intercourse. This takes time, but the time element is not to be considered. There is no time for poor work, or hasty work. Better to confine the attention of the class to one selection, studied as a whole, as long as the interest is sustained, than to pass over hastily without making an impression; but in doing this the mechanical should not be over emphasized; it is the life and spirit which should be sought. The teacher should remember that life comes from within, and that the outward expression is but the reflex of the inner emotion. Too often the work in English degenerates into mere fact-gathering and classification of phenomena. This is not the end or aim of language-training. A glimpse of the soul side of life-giving qualities, an effort to see what the author saw and to feel what he felt, and then, having caught something of his inspiration, to embody it in the life of the individual—this is important, this is fruitful.

It is well to remember that facts and figures will probably be forgotten, but mental images based upon word-pictures, those which stir the emotions, will remain. Words leave us, but the melody of the song remains to thrill us again and again. It is the emotional side, the soul side, that is the important thing in all work in language. Why do we study Tennyson or Milton or Shakespeare? What is the end sought—is it fact-gathering, or is it inspiration? Why study Scott, if not to create a love for the Wizard of the North? This all calls for culture—a culture that embodies æsthetic insight. It must

be cultivated by the teacher, and be the goal toward which the pupil is led. Oral work should be combined with the written. The ear as well as the eye should be the medium. "How does it sound?" is more effective than "how does it look?" The teacher should be wise enough to omit the conventional "why." This is fundamental.

In art we cultivate the eye; in language both the eye and the ear contribute to a proper appreciation of the worthy in literature, and thus to the training in English. To appreciate fully a great poem, the eye must be reinforced by the voice, the strongest impressions entering by the ear route, and these impressions should never be disturbed by questions of fact. Someone has said: "The ear is the pathway to the heart."

The real aim of English is the formation of right ideals of life and the appreciation of the best, and an effort to grow to be like the models. If, in our final presentation of a poem, we have killed the possibility for the child of a future appreciation of real literature, we have failed most miserably. It is inspiration we must seek, inspiration to *be* and to *do*. What matters if we are not able to trace every allusion to its remotest corner, if we are able to catch some glimpses of the world beautiful in which the poet dwelt? He who would teach language must love the literature in which the best language is to be found, and love it with an intensity that will cover the mechanical secondary by the life-giving qualities. The appreciative and creative go hand in hand, and with them should always be the model—the teacher. Teach appreciation thru your own appreciation; teach expression thru constant association with the best; then, when opportunity is present, expression will be spontaneous, natural, and effective, and the mechanics of language will be simple, but thoroly rational.

A FILIPINO'S VIEW OF EDUCATION IN THE PHILIPPINES

SENORA MARIA DEL PILAR ZAMORA, INSTRUCTOR IN INSULAR NORMAL SCHOOL, MANILA, P. I.

Before beginning my talk I wish to request that, not being accustomed to speak in public, your benevolence will excuse any mistakes.

In April, 1898, war was declared between the United States and Spain. As a result of this war Spain ceded the Philippine Islands to America. In January, 1899, the president of the United States appointed a body of men, wise in government, to come to the Philippines from America. These men were to learn all they could about the country and its people, that they might be able to recommend a just form of government for the people of the islands.

It was necessary that they should find out what the ideas of the Filipino people were in regard to government, and that they should study the needs of the country before they could make any recommendations. These commis-

sioners came to Manila early in April, 1899, and began work at once. They traveled about the country to see what it was like. They held meetings for a discussion of the questions that arose, and they invited prominent Filipinos to meet with them. They did this in order to learn the wishes of the people. The members of the commission saw that good schools were a necessity in the country. An attempt was made to provide for this need at once, and a great many schools were established under military control, with soldiers as teachers. It was soon apparent, however, that to make the schools what the people needed would require experienced teachers. These could not be procured immediately, but a couple of years later a thousand trained American teachers were brought to the islands.

The teaching of English was the first consideration. At first English was taught merely as one subject of the the school curriculum, as a foreign language is taught in the American schools. Little was accomplished by this method, and it was soon abandoned. English was then made the only language of the school, all teaching and all recitations being in this language. This plan is successful and is the one now followed in all our Philippine schools. Before the arrival of the American teachers soldiers were employed in the schools of the provinces. Their work was very useful in promoting that enthusiasm without which the beginning work of the trained American teacher would have been much more difficult.

On August 23, 1901, three years after the landing of the first American troops in Manila, the transport "Thomas" brought a shipload of American teachers. The native teachers gave them a hearty welcome. The organization of the school work was then possible, and the American teachers were distributed over the islands.

Before this large number of American teachers came, the superintendent of Manila schools, Dr. David P. Barrows, organized a normal school for the instruction of native teachers. Notices were sent to all the provinces asking the native teachers to attend this school, and a good many of them gladly obeyed this summons. This school was in operation only a month, yet during that short period both teachers and pupils improved greatly in their knowledge of English. This school was the forerunner of the Insular Normal School which was organized by Dr. E. B. Bryan in the "Escuela Municipal" in the walled city in 1902. This building was used by the students of a grammar school in the forenoon and by the students of the normal school in the afternoon. The object of this school is to train young men and women as teachers. At present this normal school is in good quarters in Ermita, which is one of the best districts in Manila. It occupies the building used in 1895 for a Philippine exposition. About four hundred pupils are in attendance, and it is considered the highest school in the Philippines conducted by the government. At the end of the last school year about thirty pupils received diplomas to teach.

The Philippine government is making great efforts to educate the people

of the islands. We can see this clearly if we recall the fact that within the past year one hundred boys from different provinces of the Philippines were brought over to the United States at government expense to be educated. The plan of the government is to bring one hundred each year, and as each boy will remain in school in America for four years, if the plan proves successful and continues to be carried out, after the year 1907 there will be four hundred students from the Philippine Islands in America all the time. All the Filipinos appreciate this a great deal, and the boys are trying the best they can to get all the benefit possible. Their superintendent who brought them over, and the teachers in the schools and colleges they are attending, are very pleased with their ability and progress.

Last October one of the Filipino commissioners called a meeting of all the girl students in the Insular Normal School, asking if any of the girls would like to come to the United States to be educated. He had hardly finished his question when a hundred hands were held up as a sign that many of those young girls were anxious to learn.

The method I employ in teaching my pupils the English language is very simple. An object is shown to the class. I tell them the name of the object, having them repeat it several times until they can say it without any difficulty; when the name is known I write the word on the board, asking the pupils to repeat it again. After they have learned the word in its spoken and written form, I *spell* the word, and in this way the pupil learns not only the name of the object, but how to spell its name—the letters composing it. This is the method used in teaching the *little* children. I have found it very successful, the children being quick to learn the name and its written form. The older pupils did not seem to enjoy this method, but the results are as satisfactory as with the younger pupils.

The older pupils enjoy "the story method" better. In this we read them a story in simple English. Then the story is discussed. The pupil is then asked to reproduce it in his own words. This they enjoy doing, and will often ask for the privilege of writing the story. It is harder to teach the grown-up than to teach the child, for the grown-up desires to go into details before he is quite ready for them. He wants to know the grammatical rules. As soon as I learned this I never omitted the written work; it is a great help for both younger and older children. I saw every day the progress they made in enlarging their vocabulary. The difficulties we meet every day in teaching the English language are in the use of the prepositions and verbs, and also in the pronunciation and sound of certain letters, such as the sound of *th* and *c* at the beginning of a word.

All the subjects in the Philippine schools are taught in the English language. Perhaps you will ask: "Why not teach the Filipinos in their own language?" One reason is because we see in our country the necessity of a common language for all the Filipino people. If a Tagalog writes to an Ilocano, the Ilocano will not be able to read such a letter. This is because the Tagalog

and the Ilocano are different tribes and the language or dialect of one is quite different from that of the other. There are a very large number of these dialects spoken in the islands, and most Filipinos understand but one of these. The Philippine Exposition Board, for example, sent notices of this great exposition all over the provinces printed in six of the leading dialects spoken in the Philippine islands, and when I saw the notices I (myself a native of the islands) was unable to understand the meaning of five of them.

The second reason for teaching English is that there is no literature in the dialects of the Philippines, even the Tagalog language having no literature. Without a literature we should be unable to enlarge the knowledge of this people.

The public school is the most precious gem that a government can provide for its subjects. The success of a government, indeed, depends upon the kind of schools it provides for its people. The strongest nations are those which have the best system of education, the best schools. The Philippine Islands have never had as good an educational system as they now have. All Filipinos believe this. They found this belief on the following two facts: *Today there are more people speaking English in the islands, after five years of American control, than spoke Spanish after four hundred years of control by Spain;* and *the number of pupils in attendance at the different schools is ten times as large as it was before.*

The old school buildings are too small to accommodate the pupils now desirous of attending, and the force of American teachers is not sufficient to meet the demand. Over the mountains and thru the valleys, from the largest cities to the smallest villages, English is spoken to a greater or less extent. The Filipinos are beginning to realize their needs, and to become Americanized in their thought and in their ambition. The hatred which for some time the Filipinos felt toward the Americans is being replaced by respect and admiration.

DEPARTMENT OF SECONDARY EDUCATION

SECRETARY'S MINUTES

FIRST SESSION—TUESDAY, JUNE 28, 1904

The first session of this department was called to order in the library of the Hall of Congresses, St. Louis Exposition, at 2:30 P. M., by the second vice-president, William H. Smiley, Denver, Colo., who introduced the subject for discussion by a brief address.

E. H. Mark, superintendent of schools, Louisville, Ky., read a paper on the subject, "What Secondary Schools May Learn from the St. Louis Exhibit."

E. W. Lyttle, inspector, Education Department, state of New York, spoke on the subject, "What May the Secondary Schools of the United States Learn from a Study of French Secondary Education?"

Frederick E. Bolton, professor of science and art of education, Iowa University, then read a paper, "What May the Secondary Schools of the United States Learn from a Study of German Secondary Education?"

The president appointed as Committee on Nominations:

E. W. Lyttle, Albany, N. Y. Philo M. Buck, St. Louis, Mo.
John S. French, Port Deposit, Md.

The meeting then adjourned to attend the different conferences, as follows:

I. English Conference, Hall No. 1; chairman, William Schuyler, assistant principal of the William McKinley High School, St. Louis, Mo.

II. Mathematics Conference, Library Hall; chairman, William H. Smiley, principal of the East Side High School, Denver, Colo.

III. Modern Language Conference, Hall No. 2; chairman, George Arthur Smith, High School, Yonkers, N. Y.

ENGLISH CONFERENCE

The conference was called to order by the chairman, William Schuyler, at 3:30 P. M., June 28, in Room 1, Hall of Congresses.

Messrs. Percival Chubb, Arthur Marvin, and Richard Jones were absent. They were to have read papers discussing the report of the subcommittee of the academic principals of New York state on a proposed course in English. The paper of Mr. E. O. Holland was the only one treating this subject.

The chairman read a paper on "English as an Art Study," and Mr. Philo M. Buck one on "Laboratory Methods in English."

After a discussion of the papers, the conference adjourned.

ELIZABETH H. CARR, *Secretary.*

MATHEMATICS CONFERENCE

The Mathematics Conference of the Department of Secondary Education was called to order at 3:30 P. M., June 28, by Chairman William H. Smiley, who introduced the program, as follows:

1. "What Study of Mathematics is Needed by the Man of Average Education, for Practical Life, Aside from Culture?" by John S. French, professor of mathematics, Jacob Tome Institute, Port Deposit, Md.

2. "What is the Least Amount of Mathematics That Should be in Any Secondary-School Course?" by S. B. Tinsley, Boy's High School, Louisville, Ky.

3. "How much Mathematics Shall Be Taught by the Physics Teacher?" by Willis E. Tower, Englewood High School, Chicago, Ill.

4. "The Mathematics Teachers' Real Problem," by Herbert E. Cobb, Lewis Institute, Chicago, Ill.

5. "The Unification of Secondary Mathematics," by Clarence E. Comstock, Bradley Polytechnic Institute, Peoria, Ill.

After discussion of the several papers, the conference adjourned.

JOHN B. QUINN, *Secretary.*

MODERN LANGUAGE CONFERENCE

The Modern Language Conference met in Room 2, Hall of Congresses, George Arthur Smith, of Yonkers, N. Y., in the chair.

After brief introductory remarks, the chairman read a paper on the "Aim of Modern-Language Study in our Secondary Schools." A discussion of the paper followed by Professor Robert Weber Moore, of Colgate University.

Frederic Davis Aldrich, master in modern languages, Worcester Academy, Worcester, Mass., read the next paper, entitled, "The Function of Grammar in the Teaching of Modern Language."

W. E. Johnson, of the German Department of the High School, St. Joseph, Mo., presented a paper on the subject, "Rapid Reading: Should There be a Combination of Intensive Study of One or Two Texts with More Rapid and Less Intensive Reading of a Number of Texts Selected from a Common List?"

In the absence of Professor Philip Schuyler Allen, of the University of Chicago, who was to have read a paper on the subject "Conversation as a Vehicle of Instruction," Professor Max Batt, of the Agricultural College, Fargo, N. D., addressed the conference on that subject.

J. Perry Worden, of the Central High School, St. Louis, Mo., read a paper on "Illustrated Aids to the Teaching of Modern Language, with Special Reference to German." Otto E. Wieland of the High School, La Crosse, Wis., led the discussion.

The meeting was then adjourned.

ELIDA KIRCHNER, *Secretary.*

SECOND SESSION.—THURSDAY, JUNE 30

The meeting was called to order in the library of the Hall of Congresses at 2:30 P. M., by President Smiley.

Gilbert B. Morrison, principal of the McKinley High School, St. Louis, read a paper on "High-School Secret Fraternities." This was discussed by William Schuyler, W. E. Johnson, E. W. Lyttle, W. H. Smiley, J. D. Curtis, John M. Downer, and J. Perry Worden. At the close of the discussion, on the motion of E. W. Lyttle, a committee of three was appointed by the president to draw up a resolution upon the matter of secret fraternities and to report at the business meeting. The president subsequently appointed E. W. Lyttle, of New York; Gilbert B. Morrison, of Missouri; and John M. Downer, of Colorado, as such committee.

The next topic for discussion was, "In What Respects Should the High School be Modified to Meet Twentieth-Century Demands?" Papers were read by J. Stanley Brown, principal of High School, Joliet, Ill.; William L. Bryan, president of Indiana University; and B. F. Buck, principal of Lake View High School, Chicago. The general discussion was participated in by J. T. Buchanan, J. S. Brown, W. E. Crosby, and J. Perry Worden.

In the business meeting the Committee on Nominations reported the following:

For *President*—William Schuyler, St. Louis, Mo.
For *First Vice-President*—James H. Van Sickle, Baltimore, Md.
For *Second Vice-President*—James Sullivan, New York, N. Y.
For *Secretary*—Wilson Farrand, Newark, N. J.

The report was adopted, and the above-named gentlemen were declared officers for the ensuing year.

The Committee on Secret Fraternities reported the following resolution:

WHEREAS, It is the sense of the teachers of the secondary schools represented in the National Educational Association that the influence of secret fraternities in high schools is detrimental to the best interests of the schools:

Resolved, That, in view of the great and increasing importance of this subject, a committee be appointed by the president to investigate the question in all its bearings and to report with recommendations at the next meeting of this department.

This report was unanimously adopted, and the president appointed the following gentlemen as the committee:

Gilbert B. Morrison, St. Louis, Mo. J. M. Downer, Pueblo, Colo.
B. F. Buck, Chicago, Ill. E. W. Lyttle, Albany, N. Y.
Edwin Twitmyer, Seattle, Wash.

On motion of J. Stanley Brown, a resolution indorsing the "American Curfew Ordinance" was passed.

The meeting then adjourned.

WILLIAM SCHUYLER, *Secretary*.

PAPERS AND DISCUSSIONS

WHAT MAY THE SECONDARY SCHOOLS OF THE UNITED STATES LEARN FROM A STUDY OF FRENCH SECONDARY EDUCATION?

E. W. LYTTLE, INSPECTOR, EDUCATION DEPARTMENT, STATE OF NEW YORK, ALBANY, N. Y.

In 1902 the French government revised the program of its secondary schools. The revised program represents the experience and study of several thousand of the leading educators in France. It represents even more than a consensus of French educational opinion, for it is based in a degree upon the experience of the leading nations of the world. For instance, the French program adopts, more completely perhaps than any other, many suggestions of our own Committee of Ten made in the report in 1893.

The chart here given has been specially prepared to show how both continuity and balance have been provided in the French program. In these two particulars and in the large attention given to drawing, French secondary schools show decided superiority over American schools. A study of the chart reveals the following facts:

Secondary education proper begins in France at about the age of eleven and covers seven years.

Courses, not subjects, are elective, For the first four years there is a choice of two courses, and during the last three years a choice of four courses.

The four courses offered are essentially what we should call the classical, the Latin–modern language, the Latin–scientific, and the modern language–scientific.

In all the courses for six years from three to five hours per week are devoted to the study of the mother-tongue, and from two to seven hours are given to modern languages.

In all the courses for seven years from three to five hours per week are given to history and geography, or to history, and from one to six hours to mathematics.

PROGRAM OF SECONDARY STUDIES IN FRANCE ADOPTED 1902

ARRANGED TO SHOW CONTINUITY AND GROUPING

(Courses, not subjects, are elective)

	Pupil's Age *		French	Latin	Greek	Modern Languages	Ethics	Philosophy	History and Geography	Modern History	Ancient History	History	Arithmetic	Mathematics	Natural Science	Physics	Chemistry	Lab. Exercises	Drawing	Penmanship	Bookkeeping	Elements of Law	Total Hours per Week
First Cycle, Four Years Choice of Two Courses	11	A	†3	7		5			3				2		1				2				23
		or B	5			5			3				4		2				2	1			22
	12	A	3	7		5			3				2		1				2				23
		or B	5			5			3					4	2				2	1			22
	13	A	3	6	3‡	5	1		3					1+1‡	1				2				22+4 ‡
		or B	5			5	1		3					4		2			3		1		24
	14	A	3	6	3‡	5	1		3					2+1‡					2				22+4 ‡
		or B	4			5	1		3					3	1	2			3		1	1	24
	EXAMINATION FOR CERTIFICATE OF SECONDARY STUDIES																						
Second Cycle, Three Years, Choice of Four Courses	15	A	3	4	5	2			1	2	2			1		1	2		2				25
		or B	3	4		7			1	2	2			1	1	1	2		2				25
		or C	5	4		2			1	2				3		3	2		4				26
		or D	5			7			1	2				3		3	2		4				27
	16	A	3	5	5	2			1	2	2			1					2 ‡				23
		or B	3	3+2‡		7			1	2	2			1					2 ‡				23
		or C	3	3		2			1	2				5		3+3	2		1				25
		or D	3			7			1	2				5		3+3	2		1				27
	FIRST EXAMINATION FOR BACCALAUREATE DEGREE																						
Final Year Choice of	Philosophy or Mathematics	A		2 ‡	4‡	‡2		8½				3		2	2	3			2‡				18½+8‡
		or B				3		8½				3		2	2	3			2‡				21½+4‡
	17	A				2		3				3		8	2+	5	2		2+2‡				27+2 ‡
		or B				3		3				3		8	2+	5	2		2+2‡				28+2 ‡
	18 FINAL EXAMINATION FOR BACCALAUREATE DEGREE																						

*Pupils begin secondary studies at about the age of eleven and may receive baccalaureate degree at the age of eighteen.

†Figures indicate periods a week.

‡Indicates optional.

In all the courses drawing must be taken continuously for five years, and may be taken for seven years, from two to four hours per week.

Even in the classical and in the modern language–scientific course, sciences must be studied from one to five hours per week through five years, and of the sciences physics and chemistry receive the largest attention.

At the end of the seven years of secondary study the baccalaureate degree is conferred on examination—a degree claimed by some to be equivalent to the B.A. or the B.S. degree of the American college.

National self-respect will scarcely permit, nor do facts force us to consider that the French boy at fifteen is as far advanced as the American boy at eighteen, or that the candidate for the baccalaureate degree in France at eighteen is the peer of the American candidate at twenty-two; but it is possible

to understand that the French boy might gain at least two years over his American compeer. First, the French boy is not the bond slave of a paleozoic orthography and of an ante-diluvian system of weights and measures. These two advantages are worth not less than one school year. Again, it is highly probable that well-balanced and continuous courses of study such as the revised French program provides may give a further gain of one or two years. Indeed, a careful examination of the French syllabus of secondary instruction seems to indicate that the American sophomore in a reputable college ought to be able to pass most of the requirements for the French baccalaureate degree.

Secondary education in France is not co-educational. *Lyceês* for girls were first established in 1880 and now enroll about 12,000 students. No classics are taught in these schools, and less mathematics than in the schools for males; but classes in sewing, vocal music, and gymnastics are provided.

From an ideal point of view the French program seems most defective in making no provision for systematic physical training for young men. It will be noticed also that no manual training, except drawing, is given during the first four years. It should be remarked, however, that manual-training high schools and commercial high schools, such as are found in many of our cities, are not in France considered a part of the secondary system.

M. Gabriel Compayre in the *Educational Review* for January, 1904, gives some interesting figures that show how classical education is losing ground in the French secondary school. In the thirteen state establishments at Paris the Latin–scientific course enrolls 1,417 pupils, as against 101 in the classical and 151 in the Latin–modern language course. The same author, furthermore, predicts that the modern language–scientific course will soon be the most popular and will attract to itself as many students as the other three courses combined. A similar drift away from classical studies is seen in Sweden; but we should not be too quick to infer that the classics ought to be discarded. It may be that European educators will discover, as some in America think they have discovered, that the study of modern languages cannot give as thoro training as the study of Latin, and that scientific studies in secondary schools do not fulfil all the hopes of their advocates.

It will be noted that the French program provides for instruction in ethics for pupils in the third and fourth years of their secondary course. If this instruction is devoted mainly to manners, which may be called concrete morals, it is likely to be effective; but there is serious doubt of the value of much instruction in formal ethics if given to pupils thirteen and fourteen years of age.

A study of the French program of necessity brings before us two questions that are agitating our own educational world: (1) Should secondary education with us begin at an earlier period, at the age of eleven or twelve? (2) Should the baccalaureate degree be given at the end of the sophomore year? The school system of France differs so widely from any in the United States that comparisons are not easily made. One fact in this connection seems important.

According to accurate statistics, it appears that about 37 per cent. of the students who enter the secondary schools of France obtain the baccaluareate degree. It is doubtful if many American high schools graduate 37 per cent. of those who enter, and it is certain that the heaviest losses in American schools occur in grades just below the high school. Least of all the children in the world is the American boy forced to leave school to become a wage-earner. If secondary instruction were begun at an earlier age, as in France, would school mortality be lessened? French secondary schools for boys employ only male teachers, and it is quite possible that this fact explains why the French boy stays in school better than the American boy. On the other hand, it may be justly claimed that the French boy who enters the secondary school more generally than in the United States expects to finish his course. The break in the course of study, the abruptness of the change from grammar to high school, is no doubt responsible for much school mortality in this country. More than that, the foolish notion that a grammar school must teach only the common English branches, and the high favor with which reviews are regarded, too often make the course of study the dreary round of treadmill rather than an ascending spiral flight. For these reasons the French plan of beginning secondary studies at an early age has many advantages.

Is it best to give the baccalaureate degree at the end of the sophomore year? Are we overdoing pure culture study in this country? The experience of France seems to support such a conclusion. There is grave social danger in deferring professional studies too long. In scholastic celibacy there certainly is a danger of encouraging the survival of the less fit. However, few educators in the United States believe that the American college senior possesses one whit too much of general culture. According to the *American Engineer* for May, 1904, the American workman on an average produces $2,450 worth of manufactured goods a year, or from three and one-half to four times as much as his European competitor in England, France, or Germany. In achieving this result he makes use of 2.15 horse-power a year, or over six times as much power as the European workman. Great power and delicate machinery cannot be intrusted to immature years, and it is by no means impossible that we have unconsciously developed in America an educational standard that is best suited to our own particular needs.

WHAT MAY THE SECONDARY SCHOOLS OF THE UNITED STATES LEARN FROM A STUDY OF GERMAN SECONDARY EDUCATION?

FREDERICK E. BOLTON, PROFESSOR OF EDUCATION, STATE UNIVERSITY OF IOWA, IOWA CITY, IA.

It has been aptly said that Germany is the schoolmistress of the world and that all the world goes to school to her. This was eminently true down to a decade or two ago. Even now, tho we in the United States boast with

pardonable pride of the best-conceived and best-executed school system in the world, we can still learn much of untold value if we but hearken to the German teachings. While commending many worthy features, we must not rush to overhasty conclusions that there is nothing good or even superior in our own system. Every school system is an evolutionary product representing attempts to adjust educational means to social ends. Oftentimes the ideal ends are poorly conceived, and again the adjustment is frequently illy secured. Nevertheless, each system has its special features which, if eliminated, would seriously impair, if not destroy, the usefulness of the entire system. Were I to attempt to demonstrate to Germans the excellencies of our own system, I should only need to show that every stage of education is so available to the masses that every boy and every girl of the humblest parents, of whatever race, color, or creed, may pass unhindered from the kindergarten thru the post-graduate courses in the university. The only prerequisites demanded are brains, brawn, and ambition. A generous government has made education possible for the masses practically without money and without price. The greatest regret is that our indulgent state governments do not absolutely r quire every boy and every girl in the commonwealth to partake of the educational feast provided during at least ten years of school life.

Now, Germany presents no such admirable opportunity of higher education for the masses. The classes only share the splendid opportunities afforded by their magnificent secondary schools of which I am to speak.

A real teaching profession in Germany.—The greatest superiority of the German secondary schools, as I view them, is their pedagogical peerlessness. As centers of social growth and control our own schools stand unique in the history of education. But pedagogically we are in the midst of great dilettantism and quackery.

The fundamental factor giving the German schools their superiority is their real teaching profession. We have nothing that compares with it. We have many teachers just as splendidly equipped, as zealous and as efficient as their best. I am egotistic enough to believe that we have many that are unequaled anywhere else in the world; but the average must ever be low as long as our requirements for entrance upon this high calling remain so low, and as long as its emoluments are so niggardly. Speed the day when those commissioned with the most important work ever intrusted to human beings shall be adequately equipped to meet their rich privilegae snd heavy responsibilities. That day will not come, however, until they are financially compensated therefor at least as well as policemen, miners, and street scavengers.

In Germany the emoluments for teaching, tho small, compare favorably with those in other professions. The tenure of office is also practically permanent when once established. I met men who had taught three generations of the same family, in the same city, in the same building. Again, as the secondary schools are largely maintained by the state and not by local taxation,

the teachers in the small towns receive salaries equivalent to those in large cities. We might well extend special state aid for high schools in every state as is now done in a few, notably in Wisconsin and Minnesota.

The German high-school teachers are all thoroly trained. None can enter upon the professional work without completing at least three years of university study. This places them academically on a par, at least, with possessors of a master's degree. A very large percentage possess the doctorate degree. As a class they have scholastic training equivalent to that possessed by our college professors. Each teacher is a master, an authority in the subjects he is to teach. In addition, they must all take two years of professional training before being eligible to a position. Thus, while 100 per cent. of their secondary-school teachers have studied psychology and the science of education, and have had some practice in teaching before entering upon their work, the majority of our teachers, especially those in our smaller high schools, are raw recruits, with inferior scholastic preparation and no professional study. In one great state in every fourth high school there is one teacher who has had no training beyond that afforded by the school in which she teaches. That state is not unique in this respect.

Knowledge of subjects to be taught, tho thoro and searching, must be supplemented by a study of the science of education before the teacher begins his work. A knowledge of the child to be taught is of even more moment than the ideas to be conveyed to the child. This professional equipment makes the difference between the instructor and the genuine teacher.

Attending numerous superlatively large *educatorial* gatherings to pull political wires, to meet notables who may help one to a more lucrative position, and to yawn over scientific educational discussions is not professional spirit, even tho called such. Professional spirit is the accompaniment only of deep reflection, critical discussion, and constructive expression concerning underlying principles of education. The National Educational Association meetings, I am pleased to say, are always made up largely of those who appreciate educational philosophy, but many at county and state meetings are not ready for the primer of educational science. Until we can require a study of educational science in the universities as a prerequisite to teaching, as the Germans do, we cannot expect much professional spirit. Since education determines the character of the civilization which shall be transmitted from one generation to the next, it becomes highly important that the best thought of the age be expended upon educational means and ends.

By studying the exhibits of the German secondary schools one can find ample evidence of professional activity. The secondary teacher is a frequent contributor to the important professional magazines and also a producer of valuable pedagogical books. One needs to mention only such names as Ufer, Richter, Hartmann, Altenburg, Willmann, Wychgram, and others, to demonstrate the leadership that secondary-school teachers have acquired and maintained. From the faculty of each secondary school there is produced at least one scien-

tific monograph each year. Where are our high-school teachers who are achieving places in the world of scholarship? Tho we have examples, they are all too rare. Our teachers are too apt to allow practical details to absorb all their time and energies. They should understand that there is nothing that will conduce to growth and to develop a broad professional view so much as the continuous pursuit of some line of scholarly investigation. There is nothing that will stimulate pupils to become scholarly so much as to be in continuous companionship with teachers who are growing in scholarship. On the other hand, there is nothing that will still scholarly ambitions in young minds so much as to be with teachers who are mere echoists. Give pupils the idea that the world is full of problems, and that we and they may have a part in their solution, and we have done more for the youth's intellectual uplift than all the drill upon stereotyped facts and processes that can be required. That so many German students turn toward scholarly investigations in adult life is due, in no small degree, to the fact that they are in daily association with serious searchers for truth—with masters, not echoists. The one who teaches others how to sing successfully must himself be a master of the art; a drawing teacher must draw, a teacher of reading must know how to read. Likewise the successful teacher of English composition must be able to stand in the ranks of those who really produce for publication. The German teacher of chemistry is a chemist and not a cookbook recipe monger, the teacher of botany a botanist, etc.

Examination and certification of teachers.—A valuable lesson should be learned from their method of examination of teachers. No one is granted any sort of certificate until he can earn one good for life. No third-grade certificates equivalent only to a poor grammar-school diploma there, either for elementary or secondary teachers. We usually require teachers to write on from a dozen to twenty branches, and submit them to such indignities intermittently for a period of years. The Germans require three or four branches besides philosophy and pedagogy.

University-trained teachers.—A fact which has much significance is that all the teachers in the secondary schools are university-trained. The one who is to guide the adolescent needs not only accurate scholarship and pedagogical methods, but also a broad knowledge of men and affairs. This equipment is second to no other, and often counts for more than all others. The interests of youth are rapidly widening at this time, and in order to understand and direct those under his care, the teacher must have a discernment of human nature which can be gained only by varied contact with it. This opportunity the university offers as no other pedagogical institution can. In meeting the pressing conditions now before us in the education of high-school teachers, this should be recognized. The university, with its varied life and interests, must ever foster the training of high-school teachers, for the fullness of development of adolescent life and the efficiency of the university itself depend upon it.

Longer secondary-school period.—The German secondary school, beginning

as it does with the fourth year of school life and continuing nominally nine years, but really ten or eleven, gives a much longer period than our high schools do for the consideration of those subjects usually relegated to the high school. The secondary school employs different methods of discipline from the elementary school; the instruction is more departmental; there is a choice of subjects or courses, and the methods of instruction are different. In the elementary school work has been almost wholly qualitative; the elementary instruction was concrete and specific. It now becomes more abstract and general; rational exposition now takes the place of dogmatic dictation; the entire work becomes more and more scientific; principles and laws rather than facts are sought; etc. The German plan makes possible an earlier introduction to secondary subjects and methods. Tho *they* probably place the point of bifurcation a couple of years too early, we undoubtedly place it two years too late. That the transition from elementary subjects, methods, and discipline should be earlier is being recognized in the six- and seven-year elementary curricula recommended widely and frequently realized. The phenomena of adolescence are, I believe, better recognized in a secondary-school course approximating in length the German course than they are in our own of four years. We need to extend the work downward in all the schools, and in the larger cities we should extend it upward for one or two years. This latter claim is becoming recognized in many quarters in the United States. High schools are extending their courses, and colleges are accepting credits for advanced standing from the high schools.

The distribution of subjects; the spiral plan.—We are manifestly more modern than the Germans in allowing much larger range of electives and in departing from the traditional lines. They are beginning to recognize the necessity of modification, and have now made Greek in the *Gymnasien* optional with English. The university doors in every faculty, except theology, are since 1902 also open to those without Greek. Further flexibility is also inevitable. In the distribution of the subjects thru the years of the course they are, however, decidedly ahead of us. They plan to have every subject before the mind of the pupil for a great many years. Instead of taking algebra, for example, for a year and "finishing" it, the subject is begun at about eleven years of age and carried until eighteen or twenty. The same is true of geometry. Trigonometry is begun at about fourteen and carried four or five years. History is carried two hours a week for six or eight years, instead of five hours a week for a couple of years. From personal inspection of the German schools I know that the final resultant is much better than in our schools. By their plan pupils are enabled to begin the elementary consideration of secondary subjects at an early age, reserving the more difficult portions until their minds are ready to grasp them. Easy algebraic processes are taken before difficult arithmetical problems. The introduction into geometry is made early, and its results are used in later arithmetical problems. Logarithms are studied at thirteen, and the tables are used constantly in multi-

plication and division. Thus a habit is formed and the method remembered. By our plan very few college students ever use or even remember the principles. They begin foreign languages early and by methods adaptable to that period of development. By this plan they are able to follow the natural method of teaching foreign languages to a much greater extent than we are. The result is that the language is much better acquired. When completed it is much less "foreign" than must be the case when hurried thru in a limited time by the grammatical method. At the close of the secondary-school period their boys have an absolute mastery of one or two languages besides the mother-tongue. Gymnasium graduates can read Latin with ease, and also write it with accuracy and facility. They can also read, write, and speak French with almost as great facility as they can their native language. Graduates of the *Realschule* and *Realgymnasien*, in addition to a mastery of French, have a good reading and writing knowledge of English. I have witnessed recitations in English in German schools in which the knowledge of English literature and grammar shown by German boys would have surpassed that manifested on the same subjects in many an American high-school class-room. I believe the Germans spend too much time upon language-training, especially in the ancient languages, but the fact remains that the ends they aim at are accomplished in a superb manner. They give us an example of exceedingly high pedagogical art.

Teaching the mother-tongue.—One of the most striking things I noticed in investigating the German courses of study was the comparatively small amount of time devoted to the various subjects grouped under the German language. They give no special daily period to reading, spelling, grammar, rhetoric, literature, etc. Thruout the whole course of twelve years they devote about four hours a week to *Deutsch*. All the varieties of work come under this head. The total amount of time thus given to the mother-tongue is therefore very much less than is given to English in its various forms in our schools. Their boys can use the mother-tongue accurately and effectively, and they have an extended acquaintance with their standard literature; which would not be fair to assert of many of our boys, I am sorry to say. There are two secrets which account for their superior results; namely, (1) they exact thoro work and omit a vast amount of profitless twaddle such as we frequently have under so-called "language lessons;" (2) they do not have "busy work," and do not have to build sentences containing only subject and predicate, but devoid of sense.

Teachers versus text-books.—In the German school the teacher counts for everything, the text-book is a minor feature. With us the conditions are too frequently reversed. Their teachers actually teach the new lessons; ours become recitation hearers. Their teachers make much of oral expression; ours too frequently exact so much written work that they might be said to conduct "correspondence schools." These indictments are not true of teachers in very many of our high schools, but unfortunately they are applicable to many teachers in our village high schools.

I have indicated a few of the valuable lessons to which I believe we may well give heed. The suggestions are not made in a carping, fault-finding spirit. And again I wish to assert that I am not unmindful of the many points of superiority in our own schools—those elements which go to develop such fine types of independent, sturdy, progressive young manhood and womanhood. It would be a delightful task to expand on that topic. I could also point out deficiencies in the German schools, but I forbear. My mission is simply that of a representative sinner who recognizes our own deficiencies and is willing to learn from whoever may give guidance. We as a nation have caught inspiration from the Germans in many things. Our kindergarten, our accredited systems of schools, universal education, the correlation of the education of the head and of heart, the recognition of the doctrine of interest, the organization of our univeristies, etc., are all of German origin. And as is often the case with grafted fruit, we believe that the new product is an improvement on the old stock. Thru careful nurture richer varieties have been produced. We now have a school system unexampled in the history of the world. But we must not live upon past or present achievements; we must examine every feature with the closest scrutiny and accept suggestions from whatever source they may come. Our greatest safeguard is our freedom from tradition, our open-mindedness, and our unique willingness to learn from any and all teachers.

SECRET FRATERNITIES IN HIGH SCHOOLS

GILBERT B. MORRISON, PRINCIPAL OF WILLIAM McKINLEY HIGH SCHOOL, ST. LOUIS, MO.

A school secret society is one illustration of the universal tendency toward organization. This tendency to form clans, tribes, cliques, bands, guilds, hordes, unions, societies, and confederations of one form or another has manifested itself since the earliest recorded times. The feeling of strength in union is an instinct both in man and in the lower animals. In the brute world, individuals unite in flocks, herds, packs, and droves for mutual benefits —for purposes both offensive and defensive. In the financial world, men unite their funds and their forces into corporations, companies, and associations; in the social world, they form into societies, guilds, churches, and unions of various forms, and under names too numerous to mention. The tendency to organize shows itself in the youngest children. Its spontaneity is seen when two or more little girls put their arms about one another and walk off by themselves, with a remark to other little girls: "You can't play with us. We don't like you." The instinctive character of the tendency to organize and its universality make it improper to complain of it as a general principle. It is only when considered specifically that the quality or desirability of any

form of organization can be judged. The spirit of good and the spirit of evil have always existed side by side in human nature; both have always employed organization to reach their ends. The instinct of organization shows itself equally in a band of robbers and in a band of mercy. Both use it to gain power—one for evil, the other for good. It is manifest that a principle cannot be defended or condemned on the ground of its naturalness. It is as natural to be bad as it is to be good.

In the development of the human race the principle of altruism has been gaining ground against the principle of selfishness. So far has this principle advanced that men are loved, honored, and appreciated in proportion to their usefulness to others—in proportion to their contribution to human well-being taken as a whole. It has come to be recognized that what is good for the individual is good for the community, and that nothing which is bad for the community can in the end be good for the individual. To him, then, who would maintain that all human endeavor is actuated by selfish motives we can say that the most enlightened selfishness ends in altruism; for men receive only as they give. The discovery of this principle has led to community discouragement of organizations which are narrow, selfish, and hurtful to the general welfare, and to the encouragement of those which are broad, generous, and helpful to the community at large. The former are rebuked by the penal and the moral laws; the latter are rewarded by our blessings and our praises. These general reflections seem appropriate before entering specifically upon the question of school secret fraternities.

If a fraternity is broad in its aims, looking toward the individual well-being, not only of its members, but of the student body at large; if it is above suspicion as to its methods and motives; if it is founded on generosity and philanthropy, and has for its aim the mental and moral improvement of its members; if it is broad in its aims and sympathies, and calculated to promote order and harmony in the government of the school and in the student body; if it is likely to prove beneficial to a boy's sense of honor, truthfulness, and justice; if it promises to make him more loyal to his parents, to his teachers, and to his country; if it broadens his sympathies and his judgment, and gives him a higher respect for the proper authorities; if it contributes to his intellectual and moral independence and helps him to be a man, and to stand upright and alone on all vital and important questions; if it has a tendency to make him catholic and democratic in his character; if it contributes to habits of economy of money, of time, and of physical energy; if it does all, or a considerable portion, of these things, then it should be encouraged, and a generous place in the educational system should be accorded it. But, on the other hand, if it is narrow in its aims, looking only to the sordid and selfish gratification of its members; if it is not above suspicion, and its motives and methods are forever under censure and discussion; if it is founded on selfishness, and its ends have to be gained by questionable practices and dark-lantern proceedings; if it has a tendency to create an estrangement from the faculty and from the

student body; if it interferes with the order and proper discipline, as well as the harmony, of the school; if it is likely to be detrimental to a boy's sense of honor when dealing with those outside of the fraternity; if it is liable to make him less obedient to his parents, and less loyal to his school and to his teachers; if it tends to lesson his respect to the constituted authority; if it is liable to make him self-important and snobbish; if it takes too much of his time and interest from his studies, and too much of his money; if it makes him rely more on his fraternity than on himself; if it makes "standing in with the fellows" of greater importance than standing in with true manly character; if it has a tendency to make him clannish and undemocratic; if all, or any, of these things may reasonably be suspected of secret school fraternities, then they should not only be discouraged, but they should be forbidden.

These considerations would appear to apply equally to high-school and to college fraternities; for I have thus far spoken only in general terms. But it is not of college fraternities which I am to speak. Whatever may be their merits or demerits, they are not the subject of this paper. It is the high-school fraternity which now claims our special attention.

Secret societies have until recently flourished only in colleges and universities. Their first existence in the secondary school is of recent date. It is within the last decade that they have entered the affairs of the high school. The growth of these organizations, therefore, comes within the observation of all experienced high-school principals of the present time. As the entire history of the high-school fraternity is in full view of every well-informed principal, it should not be a difficult matter to form a correct estimate of the merits of its claim to a place in the school life of the pupils.

At the outset it is proper for me to say that my competency to speak on this question is based wholly on my observation *on*, and my experience *with*, fraternities, and not on my experience *in* them. They will claim that one who has never had the experience of membership is not qualified to pass upon their merits. To this it may be answered that it is hardly necessary to be an apple tree in order to be a good judge of fruit. Judges in our courts of justice are not selected from among the class of men they are called upon to judge. Experience here would disqualify, not only in ability to judge, but in capacity to serve. In the medical profession, license to treat disease is not confined to those ailments which the practitioner has himself had. It is not considered necessary for a doctor to have smallpox as a preparation either for diagnosing its symptoms or for prescribing its remedies. Nor is it necessary for the principal of a high school to have personal experience and participation in everything which pupils may take a notion to do.

High-school fraternities are usually started by boys of the well-to-do classes, who desire to enjoy some distinction which would not be likely to come to them by the usual process of merits and rewards. They are at the start among the better class of boys who have no special motive beyond having a good time and gaining access to what they call the best society. Qualifica-

tions for membership are good looks, affable manners, good clothes, and ready facility in attracting the favorable attention of the girls. I have not noticed that their ability as students, their manliness, or their independence of character has much to do in their selection. The fraternity thus formed at once assumes characteristic traits and qualities. It becomes exclusive, self-important, mysterious, hidden, deceitful, and, under censure, impertinent. Whatever high and noble tenets they may have stated in their secret ritual to support the best interests of the school, they assume that they are alone competent to pass judgment upon these interests. They are bound by solemn oath to support one another and to perpetuate the fraternity. They modestly admit that they are the "best boys in town" and that they are prepared to carry their points. Their organized efforts to run the school affairs of the student body, and their ridiculous airs of superiority, soon arouse the hostility of the other pupils, and another fraternity is started to get even with the first one. Strife, discord, and ill-feeling follow, and the school is kept in a turmoil—a turmoil emanating from no principal of action, but from a ludicrous assumption of superiority on the one hand, and a vigorous resistance of that assumption on the other. They fail to do the work of the school as they should, and give little real attention or concern to their studies. They combine their personal individual influences to cajole or intimidate the teachers into passing them. They hold their fraternity above parents, teachers, principal, and school. If opposed, they resort to trickery, deceit, and all forms of untruthfulness, and dark-lantern proceedings. They hold secret meetings at separate houses, hotels, and in some places have their own fraternity houses where they hold nightly orgies and revels. I shall, of course, freely admit that there are exceptions to the conditions here described. I have pictured the fraternity in cases where its development has been normal and complete. Of course, the qualities I have mentioned do not fully apply to a young fraternity which is yet in the stage of gaining the graces of the good-natured principal—which is strictly on its good behavior till it can gain a foothold in the school. But I have every reason to believe that I have made a just representation of every high-school secret fraternity which has had a natural growth.

About a year ago I took the trouble to ascertain the opinion of other high-school principals on this question. I sent out 200 copies of a circular letter to as many principals of our largest cities, asking for information and opinions on this question. Some of you will doubtless remember receiving it. I received answers to 185 of these. All but four expressed disapproval in some form and in some degree, and the large majority expressed disapproval in strong and unqualified terms. One curious and significant fact in connection with this inquiry was that many principals reporting disapprovingly asked that their names should not be used in quotation. This certainly furnishes proof of my claim as to the intimidating, hostile, and factional character of these fraternities, and is in itself one of the most potent arguments against them. A similar inquiry was made a few years ago by Principal Twitmyer

of the Seattle High School, and with similar results. There is very little doubt that if a ballot of the high-school principals of the United States could be taken by the Australian system, the vote would be practically unanimous against secret fraternities in high schools.

The consensus of opinion, so far as I can gather it, seems to be: (1) that they are unnecessary in a school where they are at home and under the guardianship of their parents, as is the case with high-school children; (2) that whatever good that might be claimed for college fraternities could not apply to boys of high-school age whose characters and judgments are unformed; (3) that schools supported by all the people should be democratic and free from caste and organized snobbery; (4) that these fraternities among children of high-school age do have a tendency to set up social exclusiveness and caste in the school; (5) that they are a source of discord among the pupils; (6) that they become factional in their characters, and that loyalty to the fraternity generally means disloyalty to everything else; (7) that they dissipate the energies of the pupils and interfere with their studies; (8) that they are selfish and narrow in their aims and methods; (9) that the conduct of the pupils should be open and above board, and that there is no legitimate want or need in child-nature which calls for secret or dark-lantern proceedings; and (10) that whatever of a social nature which it is necessary to encourage in school can be done thru other and better forms of society which can be under supervision and control of the principal and teachers.

If this view of the matter represents in whole or in considerable part the sentiments of the school principals of this country, then it would seem to follow that some concerted action should be taken toward checking the growing tendency of these organizations to increase and multiply. What is the remedy? What can be done with those already in existence, and how can the formation of new ones be prevented? The most natural and legitimate method is to remove from their reach some of the prizes and honors which it is one of their chief objects by organization to secure; to deny them all the privileges of class and school honors—athletic, social, and intellectual—except those of the class-room. Finding themselves thus with occupation gone, their growth becomes slow and difficult. A boy with worthy ambitions will not join a society on which the school authorities have placed a ban. This plan will not always obliterate fraternities, but it will entirely change their character. They will no longer be composed of the high-minded, ambitious, and able, but of those whose only purpose is to have fun. Their influence will no longer be dominating, and the school as a whole will not be disturbed by their presence. They will be composed of boys whose abilities do not fit them to take leading parts in competing for school honors, and whose characters are not emulated by new boys coming into the school.

Among the schools in which this plan has been adopted may be mentioned those of Seattle and Kansas City, Mo. Resolutions barring "frats" from all school functions outside the class-room have been passed by the boards of

education of both of these cities. What the ultimate result of this policy will be it is too early to predict with certainty. Of course, much will depend on who manages the schools. But whatever may be the outcome of local and individual cases, this much is certain: there is a responsibility resting on school authorities to govern the schools under their charge and to keep them from hurtful influences.

Before closing this paper, which the time limitations make too short for an adequate treatment of the subject, I wish to call your attention to one or two additional thoughts which are of first importance in dealing with this question. In passing from the old-time severity in dealing with children, we have lapsed into a period of juvenile license. I am no advocate of corporal punishment or of undue severity in dealing with the young, but there is one cardinal principle held by our Puritan fathers which we have temporarily neglected and which we must sooner or later restore. I refer to the principle of obedience. If a secret fraternity is wrong in principle, and inimical to the best interest of the school, it should be prohibited. Certain fundamentals in dealing with children have at different periods of our history been lost sight of.

The first and chief of these is to be found in the philosophy of our fathers that a child from birth to twenty-one years of age is dependent on and subordinate to his parents and teachers. He is so by right, reason, and laws of nature. Strict and unswerving obedience is the child's portion. On this depend his present safety and his future success. In office, in business, in every worldly and practical relation, a decent deference to official superiors is a condition, not only of peace and harmony, but of social existence. Appropriate penalty for parental and school disobedience should be as swift and certain as is a penalty for the violation of a law of nature. Superiors sometimes make mistakes, and the right of reasonable protest should ever be accorded to the inferior, but disobedience should never be tolerated. Respect to law and authority is the bulwark which guards the safety of all human institutions.

The second fundamental was sometimes lost sight of by our fathers, viz., that this obedience should be secured by gentle, kind, humane, and reasonable means; by so shaping his environment that the child will generally choose the right and avoid the wrong. Unyielding kindness in the enforcement of law and order not only secures obedience, but it commands the respect of the young. The ideal school will be founded on justice, on love, and on implicit obedience. The fundamental truth of authority of the olden time will be clothed in the fundamental truth of humanity of the present. In applying these principles to the fraternity question, I would provide for the pupils in the school all that of the legitimate and harmless elements which they would realize in the fraternity. I would provide literary societies in which a share of social pleasure may enter. I would enter personally into their pleasures, their games, their parties, and their dances. I would make all of these elements in the conduct of the school. I would remove all legitimate excuse for a secret conclave to secure covert advantages. If after this a secret fraternity should

make its appearance in my school, I would first laugh at it. If this proved ineffectual, I would reason with it. If reason failed, I would withdraw from the recalcitrant members all school privileges outside the class-room. Thus far I have kept within my own observation and experience. If, however, this means after a few years trial should prove to be ineffectual, I would not hesitate to prohibit by a formal rule and to enforce the prohibition by prompt suspension. Whatever it is right and necessary to do in managing our schools, if done thoughtfully, humanely, and deliberately, will receive the sympathy and support of our patrons.

DISCUSSION

WILLIAM SCHUYLER, assistant principal, William McKinley High School, St. Louis.—In order to start the discussion, I would say that not only principals and teachers of high schools are opposed to these fraternities, but also the college fraternities whose liberty of choice is by them greatly limited. Boys from school fraternities wish to stick together, and so college societies have the greatest difficulty in breaking up "these bunches of kids," which often contain members considered undesirable under their traditions.

W. E. JOHNSON, St. Joseph, Mo.—The teachers, and even the people of Missouri, have been greatly interested in Mr. Morrison's attack on fraternities. But Mr. Morrison has had a strong board and the courts behind him. What would he have done if the board had not backed him up?

E. W. LYTTLE, Albany, N. Y.—The heart of the problem is this: How is the high-school principal to say to the descendents of the men of 1776: "You shall not organize in secret or otherwise? If you do, you shall be discriminated against." What reason can he give? If their undoubted evil could be shown, well and good. I have had fraternities which have not been utterly bad. I have not allowed them to meet in the school building. Still I am undecided, and should like to have Mr. Morrison state what ground the principal could take.

GILBERT B. MORRISON.—While it is not claimed that secret societies outside the school can be controlled by the school authorities, it *can* be claimed that the school authorities have a right to protect the reputation and well-being of the school by forbidding the use of the name of the school by persons who bear none of its responsibilities; that the principal has a right, and it is his duty, to say to pupils: "You may not form a secret society, in the name of the school, which in my judgment is detrimental to its best interests;" that pupils have no right to dignify a midnight revel by using the name of the school for protection; that the teacher's authority is commensurate with the needs of the school —its curriculum, its discipline, and its reputation.

E. W. LYTTLE.—How about fraternities that are partly composed of scholars and partly of outsiders, who do not use the school name and yet cause trouble?

G. B. MORRISON.—I know of no school fraternity without the school name. Those I have had to do with have always belonged to the school. They tried to make this distinction: "We are pupils *in* the school, but we, as fraternity men, do not belong *to* the school." This, however, would not do. Principals are responsible for the good name of the school. They have no responsibilities over fraternities outside of the school.

W. H. SMILEY, Denver, Colo.—I have had considerable trouble with fraternities, and may name an instance of two fine boys, pledged while in the eighth grade. When they grew older and had their moral ideals fixed, they wished to withdraw, but were not allowed to do so, being threatened with publication all over the Union. The high-school boy and girl ought to be free to all good influences. Their feelings are in a fluid condition, and

they should not be narrowed by any set or society. They should be free to make acquaintances and intimaces at any time, and the fraternities prevent this. They are undemocratic, and also lead to idling, late hours, smoking, and lavish extravagance in expense.

J. M. Downer, Pueblo, Colo.—Fraternities may be advantageous to high schools, but certainly the disadvantages are greater. The worst thing is that their true character is not understood by parents and school boards. There is great ignorance as to the legal rights of principals and boards in this matter. Neither he nor the president of his board knew anything definite. Would it not be well for this department to make some report on this matter, especially on the legal side?

IN WHAT RESPECTS SHOULD THE HIGH SCHOOL BE MODIFIED TO MEET TWENTIETH-CENTURY DEMANDS?

I

J. STANLEY BROWN, SUPERINTENDENT JOLIET TOWNSHIP HIGH SCHOOL, JOLIET, ILL.

The public high school is the center of our system of public education in the United States, and must continue to be the center around which all movements looking to educational advancement must gravitate.

For a long time the high school has been a sort of shuttlecock between the elementary school and the college, each jealously guarding what it considered its own sphere of usefulness and resenting vigorously any attempt at interference.

In spite of the fact that we have no well-defined scheme of public education, the elementary school, the secondary school, the college, and the professional school are all gradually finding their most natural and best-adapted spheres of usefulness; and so, in order to meet the demands of this century, and therby do the greatest public service, we suggest certain modifications in the high school.

We have been lamenting for many years the chasm, the yawning gulf, between the eighth grade and the ninth grade or high school. We have written much, and talked more, and experimented still more; but little has been gained. The secondary teacher blames the elementary teacher, and the elementary teacher as regularly blames the secondary teacher. This will continue to be so until the elementary course is limited to six years and the secondary is begun about two years before the period of adolescence begins.

At present the *break* in the school course comes with the *break* in the natural, physical development. Both breaks, coming simultaneously, mean more than the average child can stand against, and so the large dropping out of school occurs. Statistics show us that the number of students discontinuing their high-school work after they have completed two years is not large, and so these students, having completed two years of the secondary course when they have reached the period of adolescence, will be many times more likely to continue their school than when the completion of the eighth grade (the

break in their intellectual development) and the break in their physical development—the adolescent period—occur at the same time.

Instead of this condition, which all admit to be bad, our scheme provides for six years' work in the elementary school, embodying all the essentials of the eighth grade and casting out all the chaff, the padding, the non-essentials. The pupil by such a scheme finishes his course at the age of twelve or nearly that, enters directly upon his secondary work, and is well established in the school before he reaches the age of vagaries, hallucinations, and wild imaginations peculiar to this period of life.

Under these conditions the teacher has only *one* great problem to solve instead of two, and all her time, energy, skill, etc., can be directed to this one which is at present divided in the attempt to solve at the same time two problems of equal difficulty.

The growth of the course of study in the secondary school has been a gradual evolution touching both the amount of time to be spent in completing the course and the subject-matter of the course. Less than half a century ago high schools were very little known, and the course of study began with one group of studies offered for one year. From this simple condition the evolution has gone on till most public high schools have two or three lines of study requiring four years to complete them. Some have a fifth year's work, and a few have a sixth year. The fifth and sixth years represent fairly the first two years of the college, and the work done in these years is accepted by the college, and advanced credit toward graduation is given.

The curriculum ought to be broadened as well as extended so as to include a good commercial course, a good course in manual training, elementary agriculture, domestic science, and military tactics. All these we view as phases of education, no one excluding any other. In some places all these things have been accomplished already, and that at no great public expense.

There is at present only an occasional school doing six years' work, but this number is no smaller than was the number doing four years' work if we look back a short time; and with the development from the present condition, twenty years hence will find a large amount of work at present done in the college satisfactorily done in the high school.

The second change ought to be made in the school day and the school year. We ought to lengthen the school day at least two hours, and this with a view to making it possible for some to do their required amount of work in the forenoon and others in the afternoon. Some could then remain under the personal direction of the teacher for all their work, while others might attend for recitation only and help to earn the living for the rest of the family for employment at such times as the school did not demand.

There are many reasons for adding about six weeks to the school year. In the first place, the average boy or girl has an abnormal development physically if free from school work for three months, and grows more during the vacation period than during the other nine months of the year. So we main-

tain that it will tend to produce a harmonious physical development, to reduce the long vacation by adding six weeks to the work of the year. From our point of view there is no more reason why schools should close for three months during the summer season than there would be to close other institutions for a like period, such as churches, business colleges, Young Men's Christian Associations, business houses, libraries, Chautauquas, etc. There is more reason now for keeping the secondary and elementary schools open for at least half the summer than for having summer terms at the great universities and normal schools.

The recent growth of summer schools in all parts of the country is the public demand for opportunity to do school work during the present vacation period. If we look back ten years even, we find very few summer schools when compared with the present number. An extension ought to be made which would include all schools from the elementary up, and this made a part of the regular school year's work.

We concede that at present the German finishes his education and is ready to enter the work of his profession from two to four years sooner than the average American. By extending our school day and school year we can easily gain two years by the time we complete the work of the professional school.

What we may call the vacation or continuation school ought not to provide the same program as that furnished for the September semester, but may be varied to give the greatest benefit.

The evening school ought to be as permanent as the day school, because it would extend the privileges of the high school to a large and ever-increasing number who cannot for economic reasons attend the day school. It is certainly in the interest of democracy so to arrange the curricula, the school year, the school day, and the school program as to make its privileges reach a large number. The evening school ought not to be subjected to severe grading, nor should the age limit be mentioned. The work now done by evening classes in the Young Men's Christian Associations, and paid for by the student, as well as the work now done by the several schools of correspondence, could be better done, and with much smaller outlay of money at public expense, if done in an evening school; and provision ought to be made in all cities for this kind of work.

In order to develop the whole life of our students, we must have a saner and more progressive management of athletic and social life. There are legitimate expressions of activity which ought to be fostered, not stifled. Athletics cannot do for the young people in high school what ought to be done unless the school possesses from three to ten acres of land within easy reach of the school. Here all outdoor games for both boys and girls should be played, and instruction given by an athletic director whose preparation for this particular work should be equal to that required of a teacher in any department of school work. It goes without saying that the school should

have a gymnasium, and in connection with it shower-bath, swimming-pool, running-track, etc., so that, when the weather does not permit of outdoor work, some proper exercise may be given indoors.

Some athletic work should be required daily of all students, barring those physically unable to take such exercise. Credit toward graduation should be given for such work to the extent of one unit where fifteen or sixteen such units are required for graduation. Many young men and some young women may be kept in school by such kind of influence, when all other kinds have failed. Military drill may properly form a part of the athletics for the boys or young men.

We do not think athletics ought to exist for the purpose of developing a few star athletes in any school, and any system which falls short of a general application to the student body fails in its greatest good.

In direct connection with the playground or athletic field an elementary course in agriculture ought to be given. This work should be placed on the same basis as other work; should be directed by one as completely equipped for this work as other teachers are for their work. The prospective farmer who enters High School ought to have as good an opportunity as the prospective lawyer, doctor, or minister, because this school is free to all who are fitted to enjoy its privileges; but you and I know that, unless we have work in elementary agriculture, the chance of the prospective farmer is not half so good as that of the aspirant to any of the professions. Let us make this suggested change general and even up the opportunities.

The social life of the high school needs a more careful and closer supervision. The school building ought to be made the center of all social activity, and this side of the student's life as carefully directed as his intellectual development. Community life ought to center about the school, and all members of the school should soon come to learn that the school means more than simply a place to study books and recite lessons. All class parties, receptions, debates; all school contests, concerts, amateur theatricals, luncheons, banquets, etc., etc., should be held in the school building, and the young people ought to think of this as the place where their life-interests center. These things presuppose the use of gas for heating and lighting; the purchase of chairs, tables, dishes, etc., for convenience in serving; the use of an assembly hall with some stage equipment; but all these things keep the mind of the student on the school and keep him in school. At the same time, all spheres of activity are developed under wholesome direction.

Another modification which is perhaps needed as much as any before mentioned is that touching the salaries of the teachers. No profession demands a higher order of talent, or a more extended preparation entailing greater expense, than that of the teaching profession, and yet the average salary is far below that of the unskilled laborer. Almost half of the teaching force of the country changes annually because other vocations are more attractive. All this is gravely detrimental to the cause of education and ought to be

remedied. Foreign travel, constant study, rest from the exhausting work of the schoolroom, are all necessary, but a very small percentage of the teachers of the country can profit by these things, because the salaries they receive are not enough to justify the extra expense.

The demands on the profession have increased enormously during the past ten years, and yet there has been no proportionate increase in the salaries. The average salary of men teachers in the United States is less than $50 per month, and that for women is less than $40 per month; and yet the teacher must be cultured and refined, must move in refined society, must dress well and live well; but the ordinary arithmetical calculations fail when the teacher attempts to do what has been suggested on a salary of $40 or $50 per month.

Let the teacher's salary be commensurate with the work performed.

To summarize this discussion, we find that four modifications in the high school would bring it more nearly in touch with this century's demands:

1. The evolution of the curriculum means that it must be extended to six years, and include the first two years of the college and the work now done in the eighth grade. It must also include work in commercial lines, manual training, domestic science, athletics, and military science.

2. The school day ought to be lengthened about two hours; the school year, about six weeks. The vacation or continuation school should be made a part of the regular school year, and this work should apply to both elementary and secondary schools.

3. There must be a saner and more progressive management of the athletic and social life of the school. Encourage—not stifle—expressions of activity. Make the school the center of all community life.

4. Teachers' salaries ought to be increased as added requirements are made. Let the teacher's salary be commensurate with the work done.

DISCUSSION

J. T. Buchanan, principal of DeWitt Clinton High School, New York city.—I do not believe in a longer day; it is long enough now. Nor do I believe in a longer term. There is also no room for ten-acre playgrounds in the Borough of Manhattan at the present price of real estate there. I believe that we have plenty of physical training now, and that athletics are running wild. I wonder if we know what has already been done, and if some of these dreams have not already been accomplished. Does culture go in waves washing over communities, or do communities develop their own culture? Such committees as those of the "Ten" or "Fifteen" have merely systematized what was already being done in some schools. I wonder what good there would be in teaching agriculture to my three or four thousand Jewish boys from the East Side of Manhattan. But if it is going to come, it will surely come. There have always been good schools. What about the schools we have come from?

J. Stanley Brown.—I deprecate too great satisfaction with the present status; that kills progress. A "perfect man" ought to be translated. The speaker then added some further arguments in favor of the positions taken in his paper.

W. E. Crosby, of New York (the oldest member probably of the National Educa-

tional Association).—I believe that the best thing for Mr. Buchanan's Jewish boys would be instruction in agriculture. This would solve many of the difficulties which trouble New Yorkers. It would be well to get these boys interested in something outside of the city. I desire to make a plea for more high schools, especially in New York state. There is now opposition to them in some quarters.

MR. BUCHANAN.—I wish to correct the impression that high schools are opposed in Manhattan. They merely needed more grammar schools. Manhattan's high schools are numerous and not below par.

J. PERRY WORDEN, Central High School, St. Louis, Mo.—I am sure that the gain in time in Germany does not result from longer terms or hours, but from securing better attention and mental discipline. The German terms are little, if any, longer than those of the high schools in some states, tho their vacations are differently distributed, there being two short vacations instead of one long one—a much more advantageous plan in many respects. The school hours begin earlier, but the recess is longer, and the teacher is free from duty except during recitation hours. I also think that high-school curricula should be varied to suit conditions in the different communities.

II

WILLIAM L. BRYAN, PRESIDENT OF INDIANA UNIVERSITY, BLOOMINGTON, IND.

Every school represents society upon some level. The school should represent society at its best. The chief progress in the past generation has been that the school—especially the high school and college—has come to represent society at its best in the field of scholarship. By the co-operation of public-school men with the best scholars, a course of study and a body of high-school teachers have been developed which together lead up to every sort of learning upon the highest level.

The chief progress to be expected in the next generation is in the field of the arts. We have already shown good intentions and praiseworthy efforts in this direction. The unavoidable requirement is that we shall call upon those who represent society at its best in all the arts to co-operate with the schoolmen in developing a course of study and in providing teachers who shall in the field of the arts also lead to society at its best. This is a thing which cannot be done quickly. The right courses of study must be found. The rightly prepared teachers must be educated. As one step toward these ends I suggest the appointment of a committee, analagous to the Committee of Ten, upon education in the arts.

III

B. F. BUCK, PRINCIPAL OF LAKE VIEW HIGH SCHOOL, CHICAGO, ILL.

The subject for discussion today should be of vital interest to every secondary-school teacher and supervisor.

What shall be the essential characteristics of the high school of the future, and what shall be the specific scope and nature of its work, depend very largely

upon the will and wisdom of educators. It can scarcely be expected that within the brief period of twenty minutes one could even outline in detail what changes may be made, or ought to be made, so that the high school will meet the demands of the rising generation. A few points which have come to me during my experience of about twenty years in secondary schools must suffice. I trust I shall be pardoned if I repeat a few statements which I made at a recent educational meeting.

From a careful perusal of pedagogical literature of even the last ten years one may discover a gradual change in mental attitude from things purely intellectual toward things more broadly humanistic and ethical. The subject taught has been receiving less attention, and the attributes and needs of the child have engaged the broader sympathy of educational thinkers. Much talk is loose declamation, but much is cogent logic. We hear more today about whether this or that subject will furnish material to measure up with the demands of the vocational aims of the student; whether this subject tends to promote a normal physical development, or whether it stimulates the instinct of curiosity and gratifies a longing thirst for knowledge and development of power in making worthy use of such knowledge; whether such subject acquaints the boy or girl with the duties and privileges of society, and inspires habits of thought and conduct which are becoming embryo-citizens of a free and democratic people. It is upon this foundation that the thinkers on modern educational questions, who are of practical help to the schools and communities in which they labor, base their arguments. The child as a coming citizen, and not the child as a teacher, doctor, or lawyer to be, is the subject under consideration when educational questions are being discussed today.

Speaking from this vantage-point, one is in immediate danger of appearing at times radical, and again somewhat heterodox; and unless I prophesy falsely, the next few years will witness a greater change in the curricula of secondary schools than the far-famed committees, whose labors have been a valuable inspiration to men of younger generations, had dreamed of.

To state the situation as it appears to me: The modern high school has committed to its care boys and girls from all classes and all communities who come with different preparation and with various ideals. They are at an age of change of growth, of evolution, and, if you please, of revolution. These changes are vitally connected with every part of their being. The physical changes are not the most important. New moods, new powers, new ideals, new ambitions, are forming. Willfulness and inclination are beginning to give place to self-directed will. Young people are becoming conscious of new and individual strengths and weaknesses. Victories and defeats mean more. Relations to new conditions are being made, and old ideals are being modified or discarded. The future is bright; the past begins to have more meaning. Latent possibilities of success or failure are greatest; a most noble life or a life of blackest disgrace may be budding.

The problem, then, which confronts every high school is, how to discover

and develop the interests and capacities of such individual boys and girls; how to direct their development so that they will become useful members of society. To take these fickle-minded bundles of human flesh and bone, with all their varying moods and passions and strong inclinations and extreme sensitiveness, and to make of them human beings self-controlled, with self-directing wills, forceful and courageous; to find out what they can do and think, and to direct the doing and thinking along the right lines; and to teach them to relate their thoughts and actions to society, are the proper functions of the high school of the future.

1. In the first place, the high school which meets the demands of the twentieth century will see the boy or girl exalted to a proper position in a social community, not by initiating each into membership in a so-called "secret" society, but by evolving each as a member in a broader fraternity of which the whole school community are members who are banded together for mutual support and benefit, and for the moral uplifting of society in general.

It is difficult to say exactly what the high school must be to meet such demands. It should not be a social club, altho it must partake of the nature of an organized society in which individuals who are beginning to assert themselves play an important part. It must be subject more or less to the demands of social life, in so far as they are not in conflict with home and state. It will not take upon itself the nature of a paternal roof, altho it must assume many of the functions which are usually carried out in the best homes. As an organized society made necessary by the principle of division of labor, it must represent the home, and deal with the various virtues and eccentricities of each home, with a view to elevating those lives which have less light to the standards of those which are best. It will not be a political club, altho the principles and practices of "essential democracy" should be among its most important precepts. As an institution established by the state, it should represent the state and prepare for active citizenship by instilling into its future citizens the prime elements and active characteristics of the best citizenship. It will not be a religious organization, altho its standard of morality and ethical teachings are second in importance only to the institution of sacred origin. To both the church and the high school the function of religious and ethical training should be delegated. The high school should be held responsible, and justly too, for more religious and ethical teaching. The high school will not be designed primarily to disseminate liberal culture, yet its teachings will be based upon broad and liberal lines which reach back to the fountain-head of knowledge of the past, which spring from close observation of the present and from clear visions of the future. The high school cannot aim at any one of these and be successful in its work. It must combine the essential elements of all into a working organization.

2. The high school of the future must conform its course of study more nearly to the demands of modern life, if it is to meet with the undivided support of the community and to be in reality the "people's college." The courses of

study must be such as minister to the actual needs of the present civilization. They must be the immediate agencies used in giving the boy and girl the best equipment for the most intelligent and effective service, and such as will inculcate in them an abiding sense of their obligations to the state and to humanity. Studies which treat of social, economic, and political subjects must receive more attention and be given an equal standing with those of more ancient origin. The mechanic arts, manual training, domestic science, architecture, landscape gardening, principles underlying successful farming and manufacturing, and all the other varied interests of the community, will be pressing for recognition. Life in all its aspects—thrilling, throbbing life—should be the guiding star of the future high school. Lay the foundations of the early years of adolescence on the basis of opportunity for activity along lines which connect with life in all its phases, and the high school will be productive of more valuable results. As firm a believer as I am in the value of the ancient classic languages in the scheme of modern education, I am still convinced that far and above them all, and beyond any other fetich which may be set up as a shibboleth by which to guide our educational footsteps, should be placed any subject which develops the force that takes hold upon the vital being of the boy or girl, and opens to view the most direct avenue of approach to modern life and modern thought.

The high-school boy reaches a period in his life when he begins to think about the relations to one another of the various facts and phenomena of studies which he pursues, and their relation to his own life and actions. He adjusts facts to one another by considering how they are related; facts as such have comparatively little value for him during the adolescent period. He is not interested in manual training, bookkeeping, Latin, geometry, if he cannot find their relation to his life. Whatever is unsatisfactory in life is so mainly because of the lack of visible or intelligible relationship. Thus manual training, chemistry, bookkeeping, bookbinding, or whatever subject may be introduced, must enlist the co-operation of the relating activity of the mind, if it would have a proper place in the scheme of education.

3. In the future high school the freedom of election must not run rampant, nor must strict adherence to a definitely prescribed course be required. Those subjects and studies which adequately supply the needs of individuals who seek guidance from trusted and tried servants of the public should be the subjects pursued to some definite end and purpose. It must be clearly understood that power results only from persistent and painstaking efforts put forth in a few definite directions and during a sufficiently long period of time. It will not be sufficient to try everything in the program of studies offered with the hope of finding something suited to tastes and inclinations. A smattering of a little of everything does not imply thinking on these subjects. A bluff at general culture is not culture at all. I am convinced that our boys and girls are making a great mistake when they think that because a study or a task is not to their particular liking they should not attempt it. To give up a study sim-

ply because it is hard is productive of flabbiness of brain and moral fiber. Nor would I go to the other extreme and compel all to grind thru the same tasks. There might be found a middle course. Some particular studies should be pursued long enough so that students will acquire some power of consecutive thought along certain definite lines. There is much truth in Dr. Martineau's statement of the case. He says the student nowadays comes with a bill of rights in his hands and says: "Mind, you must not be dull or I shall go to sleep; you must attract me, or I shall not get on an inch; you must rivet my attention, or my thoughts will wander." The reply of the doctor has much sense; he says: "This enervated mood is the canker of manly thought and action."

Strength of mind and moral fiber do not result from energies wasted or dissipated in time of youth by dawdling with this or that study or task; yet I think the students are not so much to be blamed for this condition of things as are their teachers and parents. I think Dean Briggs, of Harvard, is correct when he says that "nothing debilitates a boy more effectively than the notion that teachers exist for his amusement, and if education does not allure him, so much the worse for education." I feel that the healthy boy or girl is interested in doing things, is interested in close thinking, and in consciously accumulating some power to put into action ideas which may have been acquired. It seems to me we ought to recognize this, and remember that in practical life the job, as it is called, must be done, and in practical life the man or woman who has not gained power thru training, who has not developed mental character and moral stamina, will have a hard time. The boys and girls have responsibilities in the struggle; they have their part to perform. The teacher can help, but connot make the child master of himself. The dignity of hard work must be emphasized, and fortunate is the boy or girl who recognizes the value of painstaking, persevering labor before he gets far in the high-school course.

4. The high school of the future should deal more largely with the development of leaders in life's work. It must tend to promote in its students an intelligent and earnest interest in life. It must not produce simply artisans, nor must it belittle the dignity of labor. It need not bend its energies to teaching how to gain a living, altho it should teach the fundamental principles underlying the great industries by means of which this free people has arrived at its present state of civilization. It will give more time to the strengthening and unfolding of character. As the high school becomes more settled in its principles and management it will realize more fully that for responsible work men and women of character are needed. "Democratic government," said a late writer, "is the standing together of men and women who could each stand alone; the voluntary co-operation of free souls." The high school ought to aim to make such social integers; it should teach boys and girls to take the initiative in matters pertaining to the common weal; to lay aside personal whims for the sake of the general good; to take the initiative in growth and culture, in the duties and obligations of life as well as in pleasures; to cultivate right civic ideals, and intellectual ethical and moral selfhood.

5. The high school of the future must have a wiser and closer supervision. Contact with men and women with breadth of experience, and with far-reaching mental and moral acumen, tend more than any other agency to produce "the divine afflatus" in the breast of the uninitiated. Advisers and teachers whose skill and experience warrant their speaking with authority must have the loyal support of the community and the state in assisting boys and girls to select from the program of studies whatever will be of most help to the young students in their life-work. Ample time must be given for this feature of the new high school. Whether the school is to number two thousand or three hundred, or whether the classes are to be limited to fifty or ten, the supervisory and teaching force must be so organized that every individual will feel the sympathetic contact with high-minded men and women, and will be aroused to noble thought and action by teachers and supervisors who are inspired by the hand of the divine as manifested in all the various phases of nature and human life. Of all periods of human development the high-school student needs the guidance of a careful interpreter who is endowed with a liberal supply of the wisdom of common-sense and is not too bookish; who drinks continually from the fountain-head of perpetual youth and is a student of human life—its impulses, motives, ambitions, success and failure; whose sympathy is as comprehensive as the minds of men, and whose love is as deep as the depths of ocean.

6. The high school should be the common meeting-ground for the whole community. Library facilities, lecture associations, political and religious gatherings in their broader aspects, high-school extension work, should all be fostered by the high-school organization. Every feature of the active life of the community which is a legitimate component of its civilization should be recognized by the high school, and should be used in the work of enlightening and giving character to the community life.

In all this work, so hastily and inadequately outlined, the individual as a member of a larger social community must never be lost from view. It is said that Buddha warned his followers against a certain kind of altruism when he told them not to worship him; therefore he told them "to become," and like a wise teacher he showed them "the way." This way the high school should point out by means of inspiration, suggestion, awakening, arousing, stimulating, and correcting to a sense of the necessity of being a positive individual. An active, energetic will must take the place of a preponderance or inclination and willfulness which are most prominent in the early years of the course. The whole sum of character is divisible into its parts, as Shakespeare must have recognized when he made Malcolm speak of the "king-becoming graces" as justice, verity, temperance, stableness, perseverance, mercy, lowliness, devotion, patience, courage, and fortitude. Many men have possessed one or more of these graces, but for our students to stand off and admire such men would make them nothing more than good hero-worshipers. We must have our students "become." The teacher above all, first, and, second, the sense

of responsibility which may be aroused in the student, are the two most important factors at work in bringing about the desired result. "Graduation," someone has said, "is the vanishing-point of the teacher." I might add that when the student can stand alone, when he becomes a social integer, with the power of initiation, with inclinations and will directed toward acquiring the "king-becoming graces," then his high-school course will have been completed, whether it be in three years, four years, or six years, and whether it be in separate schools for boys and girls or in coeducational high schools.

ROUND TABLE CONFERENCES

ENGLISH CONFERENCE

ENGLISH AS AN ART STUDY

WILLIAM SCHUYLER, ASSISTANT PRINCIPAL OF THE WILLIAM McKINLEY HIGH SCHOOL, ST. LOUIS, MO.

Last December Mr. Philo M. Buck and I sent a circular note to over one hundred principals of high schools, reaching nearly every state in the Union. We asked for information on the following points:

1. The preparation of the pupils coming from the grammar schools in (*a*) English language and grammar, (*b*) English literature, (*c*) English composition.
2. What is attempted in the same three lines during the first year in the high school?

To this letter we received about seventy-five replies, which I studied with great interest. I have not the time to give you a tabulation of these replies nor any scientific inductions, but only a few inferences dealing with the present state of the teaching of English, and an idea or two as to what the best course in English should be.

Many of the principals addressed were extremely shy of making any definite statements about the preparation their pupils received in the grammar schools, and either sent me the course of study or referred me to the city superintendent. Others, however, were quite outspoken, and from their remarks I have learned much. With rare exceptions, the western principals found their pupils well prepared in technical grammar while in the East it was just the opposite, and in the middle states sometimes one and sometimes the other. Whether this is because the eastern men are more exacting in the matter of grammar requirements, or because the western grammar-school teachers are more conservative, and therefore more thoro, in teaching technical grammar, I cannot decide. Much fault was found in some quarters with the teaching of so much literature in the grammar grades, and in others with the fact that pupils, while apparently knowing technical grammar very well, could not apply it. In all the high schools addressed the course in English was based upon the "college requirements," with the training in composition and rhetoric very similar. However, from almost every quarter came a strong note of dissatisfaction with the present status of the teaching of English; only Chicago gave an indication of perfect satisfaction with the preparation of the pupils and the working of the course of study.

I give a few extracts from some of the letters which seem quite significant:

"The pupil's knowledge of formal analysis is fairly good, but they know very little of English grammar an aid to sentence-making." (Colorado.)

"The graded schools here as elsewhere send their pupils to us with more or less knowledge of English grammar—accurate to a greater or less degree. For all practical purposes they know nothing of the subject. Thank you for not inquiring after *our* results." (Vermont.)

"The pupils coming to us from the grammar grades are fairly well acquainted with the different parts of speech, and are able to give readily the relationship of the different parts of the sentence. There is a much less number of small errors in sentence structure than formerly; but, sad to say, these grammatically correct sentences are accompanied by a certain palsy of the imagination. The boys do not see, feel, and think enough. I see no reason why accuracy in writing should be accompanied by such a serious fault as the one noted." (Kentucky.)

"The pupils who come to us show little knowledge of English grammar. That is to say, they do not, many of them, have the 'sentence sense,' the ability to see where one sentence leaves off and another begins, or the relationship of part to part within the sentence. In *our* high school we are returning to the oldtime reader and to a simple text-book in composition. We are trying to teach reading, spelling, and simple composition. That's all." (Connecticut.)

"The greatest drawback is the pupils' poor command of words. They seem to have in their heads only an echo of the sound, and the faintest possible idea of the meaning, of words that are not in almost constant use; for instance: 'Blood consists of two kinds of cork screws—red corkscrews and white corkscrews.'" (Ohio.)

"The worst difficulty is to correlate the work between the grades and first-year high school. Here is a sort of gap which we find difficult to work over or bridge. It seems that the high-school teacher hardly knows what to expect of the grade teacher, and *vice versa*. It seems to me that English and English composition are both hard to teach. Is it that English teachers do not know what to aim at? There is no sort of definiteness about it that I can see." (Illinois.)

Perhaps in this last reply lies the whole difficulty that is bothering us English teachers. We do not as a body know what to aim at. With the Harvard idea on the one hand, and the Yale idea on the other, and our old faith in grammatical analysis and parsing, we are, to say the least, distracted. And the worst of it is that most of us do not know what English really is.

How many of us can write a page of English, that has elegance and feeling, without thinking of the process? How many can do it at all? How many read the sloppy English of Winston Churchill and his ilk with interest and approval? How many can read aloud to their classes a pathetic scene from one of the "classics"—not as an elocutionist, but in such a way as to move the pupils to tears? How many have even tried to do this?

And yet the primary aim of all pure literature, as of all other arts, is to awaken in us feelings we have never experienced, to give us what Lessing calls a "noble pleasure," to open unto us worlds that are not ours. This we have, most of us, forgotten; because we are teachers—trained in pedagogical science. We have tried to teach our noble language and literature as a science, whose principles can be memorized and then applied, and by which we may show our learning—making brilliant recitations before our admiring pupils. But often the more learning exhibited, the worse the results. Female teachers of English have suffered from the deadly blight of the Browning Club, and the men from the intellectual miasma arising from theses for the doctor's degree. Listen to some "interpretation" of a classic to a class whose age is "sweet sixteen," or read, in the edition of some "college requirement," the notes, written to show the editor's learning. And then we wonder why so many of our pupils come to hate the classics, and choose their daily reading from the bargain counters of the department stores or from the cheap fiction of the public libraries.

But English, both composition and literature, is an art study, and must be taught as an art, not as a science. Of course, there is a scientific side to language—grammar, and a scientific side to literature—rhetoric; like acoustics in music and the theory of color in painting. But the art work came first; and the scientific side was developed later by those who could not themselves produce the work of art. It has its value to those who would become specialists; but it is not necessary to the appreciation of art works, and in a very small degree to the creation of them. In fact, too much emphasis upon this side takes all the heart out of appreciation, and turns the play of creative energy into a dry pedantic exercise. In the secondary schools technical grammar is best mastered in the study of some foreign language—especially Latin and Greek—and rhetoric belongs,

except the most elementary notions, to the college curriculum, or to the last year of the secondary school.

Only two objects should be aimed at in the secondary course in English: (1) the power to write in modern style clear and forcible, if not elegant, English; and (2) the capacity of fully appreciating and truly loving our great literature.

So, half the time of the English course should be devoted to composition—composition written and corrected in class by the pupils—the whole being overseen and directed by the teacher, and the grammar and rhetoric being taught incidentally as required by the young writer. As I said, English composition is an art, and it must be taught as the art of painting is taught in the studios. Do we find pupils in the fine arts learning rules and exceptions? On the contrary, the teacher sets them to work doing something—reproduction or original—and, when they go wrong, shows them how to make it right. He tries to have them first see and feel; then express what they feel and see.

Likewise, the teacher of composition should not only be able to write well, but should love to write. One cannot teach drawing who cannot draw, and one cannot teach it well unless one loves to draw—is, in fact, an artist. There are some pupils who have so much of the "divine afflatus" that they will write and write well in spite of all the teacher can do to prevent them by keeping them in the strait-jacket of grammatical and rhetorical perfection; but it is a truism to say that unless the teacher really loves the work in hand he cannot arouse the interest and enthusiasm of his pupils. And the interest and enthusiasm of the writer make most of the difference between good and bad writing.

The composition teacher should be an instructor in good writing, not a critic of poor writing. He should arouse in his pupils feelings they have never felt before, make them see what they have never seen before, and then set them to writing. I have seen real teachers do this in high schools, and the results are wonderful; not only full of imagination and feeling, but in genuine good English—not "schoolmaster's English." The sentences were simple, but good in structure; for every pupil is born with the sentence structure in him, and it will develop as his thought develops. Children write just as they feel and think—no better, no worse. The disheartening results come when they try to write as others feel and think, or as they have been taught to believe that they ought to feel and think. On the other hand, I have seen in pupils' themes produced under this "art method" actual elegance in English—to be sure, childish elegance. But would you have it otherwise?

I know many people who speak and write the best English, who have never looked inside an English grammar; but all their lives they had heard and read nothing but the very best. I have had pupils who could analyze and diagram the most complex sentences perfectly, but who could not talk two minutes without glaring mistakes in grammar; for at home and on the street they had heard nothing but the worst possible English.

But how may these poor children of ungrammatical parents and un-English surroundings be made to write and speak correctly? By the frequent proper reading of our literature. I mean artistic, not hasty, superficial or heartless reading. Not only should every teacher of English be required to show the ability to write clear and forcible, and even elegant, English; but he should also be required to read orally, not only intelligently and intelligibly, but with feeling. Our pupils read with more feeling in the fourth grade than in the high school. But every pupil who has feelings has in him the ability to read well, if only he be encouraged by a teacher who knows how. It is of little consequence if the pupil can give in examination the date of the deportation of the Arcadians or the correct pronunciation of *loup garou;* but of vital moment if his eyes grow moist at the death of Gabriel.

The other half of the time of the English course should be given to oral reading in which the teacher should be the leader, the inspirer of a love for the art works of our noble language. There should be no second-hand criticism of our great masters. The mind of adolescence revolts from criticism. It wants to feel; and it should be helped to

feel deeply and truly. It is not the imparted knowledge of Carlyle's rank in literature that we need, but the stirring effect of Carlyle's noble heroics upon the youthful soul.

It is worse than useless to learn "lists of words," with their definitions, derivations, and diacritical marks attached; for words learned out of connection are unfertile. But fertile, pregnant language comes from hearing new words frequently spoken or read in connection with the ideas they express. In this way the most delicate shades of meaning grow evident. There is also no need of asking the meaning of words if the pupil reads intelligently—for by this he has shown that he understands the subject. And for strange and new words, a definition, given by the teacher, and pointed by the connection, will be far more fruitful than the dry results of any dictionary investigation.

Above all, the reading hour should be a time of unmixed pleasure—a "play hour," so to speak. We teachers have been so anxious to get profit from literature that we have forgotten that without pleasure there is no profit in any form of art, and that with true pleasure there is all profit. If a pupil feels that he is not obliged to *learn* anything when he reads his classics, but is going to enjoy himself thoroly, then he will carry away much that is valuable and lasting, and, what is of much more consequence, will love his author.

It may be said by the way that the list of the "college classics" should be greatly extended and a wide choice allowed, so that the teacher may have fresh pastures. There is nothing so deadening to artistic enthusiasm as going over and over the same work. Even the greatest masterpieces pall on too frequent repetition.

In conclusion I would say that we must never forget that the English course is an art course, and that the teachers should be trained from this point of view. The teacher's examination in English should consist of an original essay, and of readings from the best authors. And we shall have no difficulty whatever in obtaining the proper sort of teachers from among our bright American men and brighter American women, if we only let them feel that what is expected from them is art work and not pedagogical grind.

DISCUSSION

OF THE REPORT OF THE SUBCOMMITTEE ON THE COURSE OF STUDY IN ENGLISH TO THE ASSOCIATED ACADEMIC PRINCIPALS OF THE STATE OF NEW YORK, DECEMBER, 1903 [1]

E. O. HOLLAND, HEAD OF THE ENGLISH DEPARTMENT, BOYS' HIGH SCHOOL, LOUISVILLE, KY.

No one, it seems to me, can offer any serious objections to this proposed course of study. Yet all of us must concede that any uniform course has its dangers and difficulties; and this one is no exception to the rule, for attempts at uniformity will frequently tend to destroy the individuality and effectiveness both of teacher and of student. Let us take up a number of the most important suggestions and consider them as fully as we may.

In the introduction we find the statement that under no circumstances shall a foreign language take the place of the English, and that a full four-year course in English should be required. Few teachers would care to object to this recommendation. Further on we find this splended definition: "English is one indivisible subject. It may not be broken up into parts, one part to be taught one year, another part the next year, and so on." The committee rightly insists that there shall be no line of demarkation between "grammar," "composition," "rhetoric," and "literary interpretation;" for the purpose of the English course is certainly not to give so much information; its aim is above that; it is intended to cultivate a discriminating taste for the best literature, and to give the students the ability to write and talk with ease and effectiveness.

In the discussion of written composition we find the statement that "the student is to be set composing immediately, and is to be kept at it thruout the four years." All of

[1] Copies of this report can be obtained from Arthur Marvin, principal of high school, Schenectady, N. Y.

us, I think, agree with this, as well as with the further assertion that "subjects disconnected with the student's life and study are to be discouraged." But when we turn to the consideration of the definite outline at the end of the report, I think there is cause for a difference of opinion. It seems to me that entirely too much written composition is based upon the books studied, and not enough upon the actual experiences of the students. This feeling is strengthened when I find that apparently much of the reading has been selected mainly for the purpose of illustrating and enforcing the principles of composition. Undoubtedly over one-third of the time devoted to English should be given to the written composition, but I am convinced that composition work loses interest and vigor when it leans too much upon the study of literature. My own observation has led me to believe that the most interesting essays written by the students are based upon their own experiences. And no one for a minute would want to detract from the composition work. Another danger is that the literature study itself will lose if the students feel that lurking behind every page is a subject for an essay. However, the judgment of the teacher would probably detect this danger and obviate it. Personally I believe that more care should be taken to keep up the interest in the composition work than in the literature study. Without great effort on the part of the English teacher today, most high-school students come to have an appreciation for good literature, but the greatest skill is required to get the students to acquire facility and effectiveness in the use of the mother-tongue. There is danger in too close co-ordination of the literature study and the written composition.

I believe that the general order suggested by the committee for composition work—i. e., narration, description, exposition, and argumentation—is correct, but it seems to me that more time at the beginning should be taken to develop ease and facility in writing, and less in the discussion of the principles involved in the various kinds of composition. It seems to me, too, that paragraphing cannot be well taught when the class is dealing with narration, for with narration, which should certainly be the basis for the composition work of the entire first year, the teacher should spend more time in calling attention to errors in sentence structure and in encouraging a more discriminating choice of words than in discussing paragraphing, sequence, and emphasis. I think there is danger in cramping the expression of the young student by discussing the more difficult elements of composition before he has acquired sufficient ease in writing simple, straightforward English.

However, I do want heartily to commend the proposed course as a whole. In it there is no mention of the old and fatal distinction of the "form" and "thought" sides of literature. It is sane thruout, and is worthy of the most careful consideration of all English teachers.

LABORATORY METHOD IN ENGLISH COMPOSITION

PHILO MELVYN BUCK, JR., HEAD OF DEPARTMENT OF ENGLISH, WILLIAM McKINLEY HIGH SCHOOL, ST. LOUIS, MO.

No science is taught today as a mere abstract of laws, as carefully tabulated and arranged facts to be digested long before any practical application of them be attempted. So also we are doing in art, and so we are beginning to do in English composition. But here mediæval methods have yet too much influence, and we, at times, still try to teach English as we for a thousand years have been teaching Greek and Latin. Now, the results of this inverted process is almost invariably a lack of pleasure, a lack of interest.

The problem of arousing interest in the class that is about to write a composition is one of the most difficult we teachers in English have to face. It is a self-evident fact that without interest there can be no living work in composition. The author must bring the best of himself to his work; he must kindle what he has to write with the fire of his imagination, and let it glow in the heat of his own personality. Without this his work

will be dead; formally correct perhaps, rhetorically unassailable maybe, but nevertheless a very clever lay-figure, a wax-work figure utterly without life.

How then shall the teacher attempt to gain this personal interest of the pupil in his work? There are several things that must be kept in mind most carefully.

First, the writing must be more or less spontaneous; that is, the pupil must be brought to the point where he wants to write; where his fingers itch for the pencil; where composition becomes a natural effort, almost as necessary as breathing, certainly as necessary as talking to his classmate. This may be accomplished. Yes, experience has shown that many English teachers do really get their pupils—not the exceptional members of a class, those would write in spite of the worst teacher—they do get their pupils to write with evident pleasure.

First of all a sufficient latitude should be given in choice of a subject. Do not confine the class to one subject alone. How would this section of English teachers, professional composition makers we should be, like to be put down, one and all, to write a "Description of a Field at Sunset," or to discourse on the merits of "Honesty," or to dilate on that charming theory "The Early Bird Catches the Worm," or to wax eloquent over "Washington Irving's Style," or to dissipate the darkness that covers the subject, "The Poet and the Nation"? I have selected most of these from a too well-known text-book. Would we, all of us, unite with evident pleasure and write—write the best that is in us? Do not, then, pin your faith to the exercises in the rhetorics, except when you are sure they will suit; rather search yourselves, and from your own experience draw your themes.

Some days ago an English teacher, a friend and colleague of mine, gave his pupils the following list of subjects for descriptions, Each pupil was to write on one alone, and that the one which most interested him: (1) "A Street-Car Conductor," (2) "A Rag Man," (3) "A Hot Tamali Man," (4) "A Ragged Newsboy," (5) "A Dude," (6) "A Lost Child;" and others I have forgotten. He told me the class never had a more interesting day in writing.

But this is not all. A mere assignment of a subject in some such voice, "The class will write today on one of the five subjects on the board," will fail incontinently. The teacher must work his pupils up to the point where they must write or—explode. This may be done in a variety of ways: by an interesting talk prefacing the day's exercises, by means of which you inspire the pupils with an idea that they and they alone can do the task; or, if the subject be a narrative, by a skillfully told story that arouses interest and then request that one be told that is suggested by it. I remember a friend of mine—not the one I mentioned before; our chairman knows to whom I refer—read to his class Kipling's story of "Rikki-Tikki-Tavi, the Mongoose," and then asked the children to tell him on paper an original animal story. (They did it, and "did themselves proud.") Only one, and she a poor little German girl who had evidently misunderstood him, told the story of a mongoose. The rest all told stories of animals familiar to them.

It is easy from what I have said to gather that I do not believe that much of the composition work of the first year or two, at least in high school, should be done at home. You can get better results if it be done in the class-room.

While the class is busy writing, the teacher should be equally busy, but not at his desk reading. Pass around the class, pointing out defects to this one, patting that boy on the back, encouraging this dilatory one whose thought and pen labor. Half of the work of correction can be done long before the themes are handed in. Come down to the same plane with your pupils, and then you can help them. Speak as one with authority, but also as one who knows the heart and feelings of those he has in charge.

After the papers are all handed in, is the work of the pupils finished on them? By no means. Many may need to be rewritten. All will need to be corrected; and here comes what most of us English teachers perhaps justly regard as an unmitigated bore. But there is a way out of this even. Have them passed around the class by the pupils, and let the class criticise and correct each other's work. Mistakes in spelling, punctuation,

and grammar they are merciless in pointing out. But there are wider and deeper questions that they may well be intrusted with. They can detect what is good as well as what is bad. Only be very definite in the instructions you give for their criticisms. I find that I succeed best when I put on the board a series of questions that cannot be answered by a mere yes or no. The following are a few I have used. They instantly suggest others. The class at the time was studying "narration," and especially the value of words of action.

1. Pick out the words that should suggest action. If you can, substitute better ones and note the effect.
2. Is there any matter that does not help along the story? Omit it and note the effect.
3. Is the arrangement the best? If possible, better it.

Have the themes first read very carefully and then the questions answered. When something can be bettered by a rewriting, and the critic sees a way by which it can be done, let him do it. The writer need not agree with him. While the work of criticism is in progress, let the pupils confer with one another. They will not step beyond the bounds of propriety, for they are far too interested in their work. Of course, they will want to use you as a final arbiter. But you must play this rôle very gracefully. Be very careful how you condemn. Never so word your condemnations as to give pain or to discourage.

After the corrections by the class are all made, the papers may be turned in to the teacher. Much of the disagreeable work has already been done, and it is now his business to glean after the harvesters.

I find that the class is always interested, when the essays are brought back, to note what remarks have been appended to each. There is always a discussion of these. The good is commended. Violent wrenches of the king's English are noted but the author's name is not given. Some teachers have kept on the black-board a museum of what may be called the "freak English" used in the class. This plan has its advantages. I do not recommend any definite plan; only I do say, whenever the serpent, bad English, shows his ugly head, smite it, and smite hard, but do not smite the user.

But I have already used up my time. I would only say, in conclusion, that the cure for lack of interest in writing is writing.

DISCUSSION

[REPORTED BY ELIZABETH H. CARR, CENTRAL HIGH SCHOOL, ST. LOUIS, MO.]

J. REMSEN BISHOP, Walnut Hills School, Cincinnati, O.—About five years ago severe complaints arose in our city, especially among business men, that our schools were turning out pupils writing slovenly English, poor letters, etc. To meet this complaint it was decided to correlate the work in English composition and education. A manuscript teacher was appointed who had no other duties than that of meeting her pupils once a week. Here the work was both oral and written. It did not proceed according to any book. The distinction between narration and description was often lost sight of, and argumentation was forgotten entirely. In oral work every pupil was required to tell before his classmates an original adventure. The experience in oral expression was found very helpful toward written themes.

A written composition was handed in every two weeks, which was corrected and handed back for revision. Thus the idea of what a paragraph is was gained from corrections made by the teacher. It was found, moreover, that the pupils liked to rewrite their essays.

The plan here outlined was humbly conceived and humbly followed; the effort was only to improve in the mechanics of writing.

How can teachers find time for extended composition work in connection with their work on interpretation of the classics?

JOHN RICHESON, superintendent of city schools, East St. Louis, Ill.—In talks with aged people of sixty or more it is found that they incline to relate reminiscences in which the tragical or unpleasant predominates. Teachers of English have a very great opportunity of carrying pupils away from the sensational and morbid, as it is found in the daily papers, and to get them to think on the pleasant incidents of their lives. Thus the greatest results may come from the efforts of such teachers, in consequence of which they should be better paid.

MISS FRANCES WILDE, Kirkwood, Mo.—Essays may be corrected before they are written. Enthusiasm alone will not secure good results in a classic composition. As a class in physical culture gains grace thru constant practice, so in composition pupils can learn to avoid errors in English by what may be called composition gymnastics. Thus my pupils are asked to combine six or eight sentences into one complex, balanced, or periodic sentence. The effect of a little of this formal work each day is quickly seen in the essays. As much as possible must be done to forestall weariness on the part of the teacher. To gain the best results moral, mental, and physical poise are necessary to the teacher.

MISS HARRIET L. KEELER, assistant in Central High School, Cleveland, O.—At this time, when written work is being made the test in schools and colleges, it is good to hear someone emphasize reading aloud. A class that has read a text, as for example *Macbeth*, aloud, in a thoroly intelligent and intelligible manner, is quite as well prepared to meet the requirements of the Harvard entrance examinations as a class that has studied and interpreted it. Read, I pray you.

W. W. EARNEST, superintendent of city schools, Macomb, Ill.—As a teacher of 130 pupils for the past two years I have gained much experience in the work, and may well offer a suggestion, namely, that subjects for composition should possess natural interest and should be of such a character as to prevent the children from seeking aid from encyclopædias and other literary sources. Essays should be written once in two weeks, and no line should be drawn between the narrative and descriptive kind. If the subjects appeal to the students, the teacher will find no little ground for hilarity in reading them.

MISS NINA UPDIKE, St. Charles, Minn.—Ought the study of the history of literature to be taken up during the third and fourth years of the high school?

MISS F. R. PERRIN, St. Louis, Mo.—It seems that the study of literature can best be studied in combination with history.

MISS FLORENCE L. ROGERS, Burlington, Ia.—As we learn to know people best by conversing with them, so we learn to know authors best by reading them.

MISS ESTHER MILLS, Central High School, St. Louis, Mo.—No work of literature can be understood or enjoyed without an acquaintance with the author—his life, environment, and the spirit of his time. Teachers ought not to attempt to present a classic before their pupils without touching, incidentally at least, upon the life and personality of the author.

MISS L. B EVERETT, Selma, Cal.—According to the course of study in California, the history of literature is studied during the last year of high school. Experience has shown that it appeals only to a select few. Would it not be better if it were made an elective? Much of the work of the senior year in high school, like the history of literature, seems beyond the range of the average senior.

J. M. GAMBRILL, department of English and history, Baltimore Polytechnic Institute, Alberton, Md.—The history of English literature ought not to form part of a high-school curriculum as a formal study. A manual is used in the Baltimore Polytechnic Institute rather as a book of reference. It is used in connection with *Ivanhoe* for the specific purpose of getting pupils interested in Scott thru a knowledge of his characteristics and preferences, whereby the boy will soon desire to know what Scott wrote. The study

of history of literature formally presented to the immature pupil would be as undesirable as studying the philosophy of history without previously having pursued the study of history.

Miss Diana Sime, De Forest, Wis.—How many are in the habit of teaching literature chronologically?

Miss Lillian Graves, St. Louis, Mo.—In Mary Institute it is the custom to teach Chaucer during the first year and Shakespeare during the second, and in this way to follow the development of English literature.

James M. Miller, Chester, W. Va.—Some pupils are interested in the history of literature and some in literature alone. Is it not possible to teach them so that the class will be interested in both?

MATHEMATICS CONFERENCE

WHAT STUDY OF MATHEMATICS IS NEEDED BY THE MAN OF AVERAGE EDUCATION FOR PRACTICAL LIFE?

JOHN S. FRENCH, PROFESSOR OF MATHEMATICS, JACOB TOME INSTITUTE, PORT DEPOSIT, MD.

In what follows I propose to consider in general the part played by mathematics in the training of the average man; this to be followed by a consideration of the different topics as to their places in the curriculum, and as to methods most effective in bringing about the results defined by their various functions in the achievement of the general object.

Ever since Xenocrates called it the handle by which to get hold of philosophy, mathematics has played an important (altho somewhat exaggerated) part in schools as a mental discipline. With the invention of analytic geometry by Descartes, in 1637, there came a revolution in methods when the so-called geometric method was superseded by algebra. This, together with the infinitesimal calculus laid the foundation of modern mathematics, which, in the hands of a remarkable array of talent, has shown itself indispensable in scientific research, not only in effecting a co-ordination of the facts gained by observation into a systematic theory, but also in anticipating certain results to be obtained from experiment. Thus mathematics has come to play another important rôle in education in preparing certain students for future special work.

Lastly, and what is universal in our age of push and among a people purely industrial and commercial, it must at once be recognized that the technique of mathematics is indispensable to the employee whose habits of accuracy, facility of process, and capacity of application are essential to the success of the industry, and fundamental to the administrator whose powers of classification and organization explain the existence of so many colossal enterprises.

It appears, then, that mathematics has a threefold function to perform, and in the immediate attainment of the objects noted above, which must appear of tantamount importance to a liberal training, I venture to say there is no field so fertile, so rich in resources, offering so many inducements to the prospector—i. e., the genuine teacher—as is contained in mathematical study.

It develops the powers of observation and retention more readily than any other science. From a utility standpoint, its "practical examination" in the battle of Manila, where, as Dr. Hodge so aptly expresses it, "the battle was won by having woven into the warp and woof of the brains of those gunners the mathematical truth that it is only waste of time and ammunition to pull the trigger of a cannon until it is aimed mathematically straight," its requirement in all construction work—these are only a few of the many

attestations of the intimacy of mathematical education to every human interest, individual and national.

It is a wonderful thing to realize that man has acquired a wider knowledge of the world in the last 250 years than in all the preceding centuries. We may, I think, ascribe the great strides of the last two and a half centuries to three sources; viz., the elimination of the church as a dominating influence in education, the invention of mechanical aids and appliances, and the application of mathematical principles to the systematizing of natural phenomena. And I dare say that, referring to the future, the one overshadowing criterion of the successful advance in scientific circles will be the efficiency in mathematical research which leads to experimental discovery, which in turn admits of a commercial phase by putting into practice with profit the practical application of this discovery.

It seems almost evident, then, that the education of our youth, threefold in purpose—namely, for the advancement of scientific knowledge in the study of nature's laws, for the development of our mechanical and industrial resources, and for the upbuilding of principle in the maintenance of a people rich in material wealth and all that goes to make high character—is conditioned by a mathematical training.

To the uncritical observer, in view of a certain discontent among pupils toward mathematical study which tends to make it ineffective, and because of certain well-defined efforts to subordinate it in the secondary course to the study of natural science, it might seem that the importance of the study of mathematics had been overemphasized. This ineffectiveness is due, as I see it, to three causes: misjudgment as to the immediate object of mathematical teaching, its improper arrangement in the curriculum, and the lack of a teaching force adequate to its demands.

Altho the chief aim of secondary education is cultural, we must not ignore the fact that the necessities of the strenuous life demand a cultural training leaning as much as possible on the material side. Mathematics is a classic in the history of cultural education, yet I believe its fitness today in the curriculum is best demonstrated by making practical utility its chief end. Again, the subject-matter of mathematics is peculiarly adapted to the logical order of development, but I am firmly convinced that up to the period of adolescence, in which is the dawn of the powers of logical reason, only those parts of number and form should come into the teaching which are most receptive to the child in the course of mental growth.

The inefficiency of the teachers of mathematics is one of the serious problems for solution in our educational work. It seems to come from a tendency to rely too much on the text-book, which in turn is due primarily to a narrow knowledge of the subjects, on the one hand, and a lack of appreciation of the student's powers of comprehension, on the other. Again, no subject has suffered more than mathematics from the narrow and rigid prescriptions from institutions of higher learning whose dominance has to a great degree stripped the secondary institution of its independence. Just as long as the measure of a successful completion of requirements in a subject is the ability to pass college-entrance examinations, just so long will our methods of instruction remain narrowed down to and into the rut of machine processes, with a corps of instructors whose abilities need not extend beyond the field of the drillmaster.

For mathematics to be successfully taught in the secondary school, it must be freed from the yoke of the narrow college-entrance requirements. It must be in the hands of instructors whose knowledge of the various branches is such as to bring into use the methods of instruction adapted to the ends sought. They must have such an appreciation of the interrelations of the different branches as to bring before the students that most powerful conception that the symbols of each with its methods of operation are in many instances only different modes of reaching substantially the same conclusion; and, what is more important, they should develop, by example, in the students the power of discernment as to the proper method to use in concrete application. With practical utility as a basis,

instruction should be conducted in such a manner as to make evident the practical usefulness of the different parts, at the same time bearing in mind that these parts together go to make up a systematic course.

In regard to the subordination of mathematics to physics in the secondary curriculum, I must say I am not in sympathy with such an extreme step. Physics, it seems to me, if made subject to a development based on logical sequence and mathematical formulæ, is stripped of its virility for the boys in the middle and early teens. Like Clerk Maxwell, when a boy, they are interested in the "go" of things, and the laboratory should be their text-book.

I am, however, heartily in sympathy with a correlation of the two; in fact, the converging to one common ground of the laboratory experiment and the applied mathematical development will conserve in the pupil an interest which is bound not to wane, and at the same time will cause him to scent the possibility of the intimate connection between light, heat, and electricity. What better stimulus than this is there for the development of independent thought—the true goal of education? To make this correlation most effective, we should include in the group manual training and mechanical drawing.

We come now to the consideration of the various branches of mathematics with regard to their places in the curriculum.

The subjects of which the curriculum is made up may be classified into *general* and *special*. Under the classification *general* I shall include all subjects regarded as fundamental in a liberal education; those subjects classified as *special* have to do, primarily, with preparation for some future vocations. For convenience in illustration, let us assume that the electives, which constitute the *special* class, are offered by the *group system*, and, in accord with general opinion that this system is found properly in the last two years of the, at present existing, high-school course.

I am of the opinion that from the time when the pupil's capacity is maximal for fixing in mind the fundamental operations for small numbers up to the introduction of electives, some form of mathematics should find place in each year's program. I make this statement on the ground that consecutive study adds greatly to efficiency in the study of mathematical technique, while its presence does not cause a displacement of other topics more suited to the needs of the pupil's mental condition.

In the grades the pupil should obtain a working knowledge of the fundamental operations of arithmetic, tested by his skill in using the tables and in applying them to continued multiplication and division; with an appreciation of algebraic notation as used for abridging and facilitating arithmetical processes; and with a true concept of geometric figures and a knowledge of certain mutual relations between them. All instruction in arithmetic should be centered about the fundamental operations, and the topics of factoring, fractions, percentage, interest, taxes, and simple denominate numbers should tend to give practical applications of these operations. The introduction of algebraic processes should be gradual and brought about in such a way as to make the pupil appreciative of the generalities of algebra. This introductory work should include the fundamental operations, factoring, H. C. F. and L. C. M. of monomials, fractions (in my opinion, this should be the beginning of the study of fractions, as a part of the number concept and numerical fractions should be taught as an application), the solution of all arithmetical problems by the equation so long as consistent with facility, and very elementary work with type-forms. The study of geometry should bring into use the metrical properties as usually taken up under mensuration.

The pupil enters the high school, then, well skilled in the operations of addition, multiplication, substraction, and division; with a knowledge of some of the simpler applications. This reduction to a minimum of intricate applications means simply a postponement of technical arithmetic to a later period when as a *special* subject it shall be taught to pupils for immediate use. He has become acquainted with the symbolic language of elementary algebra, and has thru its use come to appreciate algebra as generalized arith-

metic, and, wherever feasible, has used it for solving arithmetical problems. Thus is obviated the difficulties found in beginning algebra in the usual way, and which are due to strangeness of expressions and methods. His knowledge of geometric figures gained in the study of form has freed him from embarrassment in later work, caused otherwise by gaining false notions, and he has learned to apply number to form.

The elementary algebra of the first high-school year should have for its immediate aim the mastery of linear and quadratic equations, paying particular regard to the applications where the possibilities of solutions and interpretations of results are most important in their practical aspects. This immediate aim in no wise detracts from the force of mathematical study as a mental discipline, nor does it impugn the ultimate aim of higher mathematical development in establishing a systematic theory for the extension of the number concept, because of the necessity of interpretations in solutions not expressible by the ordinary numbers of arithmetic, and the mastery of type-forms in the classification of algebraic expressions to facilitate and abridge operations, these may be shown in later work, and without any alteration of definitions to fit into a universal theory. Care should be taken not to bring into the work long and complicated applications of principles. Teaching should always be commensurate with the power of assimilation; otherwise it might cause mental indigestion.

Plane geometry, which is usually taught in the second year, owes its presence in the curriculum to the demand of college authorities. This is the only apology which I can offer for the presence of the subject employing the methods prevalent in current textbooks. As a mental discipline simply, it has no place in the modern curriculum. As to the general field of mathematics, its methods caused a stagnation of development for twenty centuries, the tremendous advance of late years being due primarily to the supersedure of algebraic for geometric methods. The chief purpose of geometry in the curriculum is a study of the properties of space, and it should be taught as a practical subject.

In contrast to the existing demonstrational and deductive methods, they should be observational and inductive. The one consists of a collection of facts obtained from observation and verified by experiment; the other is a series of properties whose right to fit into a definite system founded on definite assumptions is shown by demonstration. The first cultivates individual initiative in the discovery (to the pupil) of new truths—an acquirement attainable by all pupils; the second cultivates the power of exact reasoning—an acquirement attainable, from this source, by practically no pupil. The first sharpens by progressive development; the second dulls by a lack of evident usefulness.

The material of observational geometry should be such as will easily find its place in mechanical drawing and physics. It should include accurate familiarity with geometric concepts and properties of geometric figures, constructions with the ruler and dividers, experimental verification, and perhaps later demonstrations based on earlier experiences.

In connection with the observational geometry the study of logarithms should be taken up, with the end that it furnishes a tool by which all numerical computations involving involution, evolution, and continued multiplication and division, may be most readily solved. The elements of trigonometry should come into the third-year course as a general topic; the instructor should have constantly in mind the practical side of the subject, and the course should be supplemented by field work.

With the introduction of electives in the third-year comes a bifurcation in mathematics, as a special subject, designed to meet the needs of preparatory and non-preparatory students. For the former the study of algebra should be continued, with the idea of developing technique. With this in view, particular attention should be paid to methods, and the full force of the formula for classifying should be taught. This course furnishes one of the best examples of the necessity of an efficient teaching force.

For those students who are preparing for a business career the study of merchantile arithmetic should be pursued at this time. It is here that there should come a thoro training in applications of arithmetical processes to the more advanced forms of merchan-

tile technique. The work of the fourth year should be the same as is ordinarily prescribed in the first college year.

In making up this course of study primal consideration was given to the following points:

1. Practical utility should be the basis of our work.

2. Each subject should play a definite part in the attainment of the general object, and instruction in this should make its functions achievable by practically every pupil.

3. Subjects introduced, and methods employed, should follow the laws of mental condition as a result of growth.

4 All the subjects should admit of correlation. It remains with the teacher, finally, to employ the proper methods in order that this course shall cultivate in the pupil facility and rapidity of operation—prerequisites to success in the business world; a mastery of forms and processes—so essential to success in scientific research; and the habit of accuracy and the power of observation—most valuable tools in the hands of a man whatever be his vocation.

WHAT IS THE LEAST AMOUNT OF MATHEMATICS THAT SHOULD BE IN ANY SECONDARY SCHOOL COURSE?[1]

SAMUEL B. TINSLEY, INSTRUCTOR IN MATHEMATICS, BOYS' HIGH SCHOOL, LOUISVILLE, KY.

What is the least amount of mathematics that should be in any secondary-school course? In our educational system we have reached that point where the building of the curriculum is of great importance. So many new studies are now clamoring for recognition that the practical and disciplinary value of each subject is placed under the microscope of practical application and scrutinized as never before. We must therefore study, not only the educational value of the individual subject, but also its value in its natural correlation with other subjects.

While it is true that a place for mathematics in our secondary school is assured, yet would not a limited amount of arithmetical study be sufficient for the absolute material needs of a great majority of mankind? What is to be gained, then, by mathematical instruction in our schools? Is a further study of this subject of practical value? It is; and by that word "practical" I mean that any subject is practical if it is necessary to the student for the better understanding of what he is doing; if it furnishes a means by which further acquirements are made possible.

In its entire range physics is, to a great extent, nothing else than applied mathematics. Even in its elementary forms a thorough study of at least the elements of algebra and geometry are required for a clear understanding of the subject. Not only that, but it is the key that unlocks the underground knowledge of all science.

A few days ago, when I was in my room at school jotting down a few notes for this talk, one of my best boys came in, and to my reply in answer to his question as to what I was doing said: "I'll bet it will be good and plenty." The amount of mathematics I have to offer today may seem to some of you at least plentiful, but I doubt very much whether the time taken to cover it will be more than is usually given in the secondary-school course.

In algebra a thorough course up to and including quadratic equations would be sufficient for any demand made upon the subject. Many of the merely formal difficulties could be greatly subordinated or omitted altogether. Let us go through our algebra with a blue pencil, scratching out here and emphasizing there some special topic.

In that part of the algebra which I have indicated I would suggest the omission

[1] By request of the author the amended spellings adopted by the Association are not used in this paper.—[EDITOR.]

of the theoretical considerations of the law of signs; curious combinations of brackets and parentheses; resolution of elaborate expressions into factors; highest common factor by means of successive division; the simplifying of fractions many times compounded; simultaneous equations of more than three unknown quantities; the binomial theorem, except for the square and the cube, and artificially difficult combinations of indices. I have been making these omissions with my own classes for several years, and I do not find that it handicaps them the least in the subjects that follow. I would emphasize the equation and make the study revolve about it as the center. The use of such forms of equations as arise in physics and other allied subjects should be used constantly. Factoring and its relation to the equation should receive a great deal of attention. In solving the quadratic equation, aside from factoring it, let us teach only one method of completing the square, but teach that method well. Results in the form of $X=\frac{2+\sqrt{3}}{5}$ is all right for the mathematics teacher, but in practical life it would far better be in a decimal.

By omitting some of the topics indicated, time may be found for the introduction of other things while studying the subject. Why not work in with the chapter on exponents a study of the simple properties of the logarithm? Much of the mystery surrounding the operations with logarithms would disappear if the student can be made clearly to see that the laws for exponents hold for numbers as well as for letters. A few calculations with the logarithm table would also give practice in mental calculations and decimals.

One of our dicta, important but now almost commonplace, is that the mind must be impressed through the senses. Make use of the squared paper and introduce graphical methods in elementary algebra. While much cannot be given along this line, yet it will help the student to a better understanding of not only the algebraic problems and equations, but of the graphical treatment now given to so many subjects.

It has been said that "the way to educate a man is to set him to work; the way to get him to work is to interest him; and the way to interest him is to vitalize his task by relating it to some form of reality." In the study of geometry I would set the student to work as early as possible with the ruler and dividers. In the early part of the subject the most important method of proof is that of superposition, and any student can be made to understand it if it is presented concretely. Use the cardboard and scissors freely; cut out the figures and actually apply one to the other. After a while he will be able to use his imagination in the application. In the study of the triangle, show its application to structural work and to surveying. When the areas of figures are taken up, make use of the squared paper. Let him see that the area of a trapezoid equals one-half the product of its altitude and the sum of its bases, concretely as well as theoretically. In all calculations let him check his work by drawing the figures accurately and neatly to scale. If he is thus able to ascertain the truth or falsity of his work, he will gain confidence and certainty.

Attention could then be paid to the fact that in daily life approximate results are quite as important as accurate results, and are often alone more practicable.

While treating the subject of similar figures and ratio, I would not lose sight of the fact that it is the connecting link between geometry and trigonometry. Why not at this time introduce the student to the sine, cosine, and tangent? I am sure that this is not nearly so difficult as the thory of limits, which, by the way, I would entirely omit, together with maxima and minima. Bring the cross-section paper into play again. Let him draw a circle, and by means of the protractor divide the first quarter of the circumference into arcs one degree in length. Thru these points of division draw the radii, and show him that he now has a fairly good table of natural functions. Now teach him how to use this table in the solution of geometrical and physical problems, and I am sure that he will more readily appreciate, not only physics and mechanics, but mathematics as well.

I do not mean to make the theoretical part of geometry subservient to constructions and calculations. Far be it from that. But carry this work hand in hand with the theo-

retical, so that the student will feel that he is actually doing something, and the study will then seem worth while to him.

I would strip solid geometry down to almost nothing else than the mensuration of the simpler solids.

The study of mathematics may be greatly relieved and enlightened by sprinkling along incidentally historical anecdotes and biographical references.

The program, then, as I have already outlined, would be algebra, through quadratic equations, with the omissions indicated; plane geometry, omitting the theory of limits and maxima and minima; that part of solid geometry which deals with mensuration of the simpler solids, and a little diluted trigonometry. This would not, it seems to me, consume much more time than is usually given in the secondary school while it would form a solid basis for further preparation for college.

HOW MUCH MATHEMATICS SHOULD THE PHYSICS TEACHER TEACH?

WILLIS E. TOWER, ENGLEWOOD HIGH SCHOOL, CHICAGO

At the meeting of this department in Boston last year a printed report upon the correlation of physics and mathematics was distributed. It had been prepared by a committee of the Central Association of Science and Mathematics Teachers, and those who read it will remember the care and thoroness of the presentation of the subject.

When the fundamental ideas of that report are fully developed and our teaching is modified to conform to their best expression, then will our work in mathematics and physics be brought to a higher degree of effectiveness than it has yet attained. While I believe that the day of our deliverance is approaching, it has not as yet arrived; and the problem, "How much mathematics shall be taught by the physics teacher?" is ever present.

The prevailing aims and methods in the teaching of mathematics are those fixed upon long ago. If the teacher attains the ends in his mathematics teaching that custom has sanctioned, he feels that he is successful. The teacher of physics, on the other hand, deals with a subject of recent growth—one in which the pedagogical aims and methods have shown a remarkable development in the past two decades; and the pedagogical success of the physics teacher is measured by no one standard.

While physics may arouse great interest and enthusiasm on the descriptive side in the exposition of the wonders of nature, it is also capable of rigid exactness in the demonstration of physical laws and principles. Hence, with the development of this latter phase of physics in secondary instruction, its dependence upon mathematics has been increasingly felt by the teacher of that subject.

The physics teacher finds further that the point of view acquired by the pupil in mathematics, secured by following the long prescribed aims and methods, is not the point of view that will enable him to *apply* quickly and accurately his mathematical knowledge to the solution of the varied problems presented in the course in physics. The pupil must be shown that mathematics is a *means* and not an *end*; that its main use is practical, not theoretical, at least in the secondary school.

To reach the best results, the physics teacher at the present time must develop this point of view in his pupils. They must be trained to think of the concrete problems presented, and then to select the appropriate formula, process, or other device that will bring the correct solution. To do this takes time, valuable time, time that can ill be spared from the subject-matter of the science.

The difficulty that physics pupils have in the mathematics of the subject—due, it

seems to me, mainly to the standpoint taken in the mathematical training of the pupil—led President G. Stanley Hall in his recent address in Chicago to decry mathematical problems and solutions in secondary-school physics. He felt that the time spent upon them in high-school physics was too great for the results attained, especially when he considered the wide fields that can at best be cultivated but imperfectly. For the teacher of physics must cover in his year's work a wide range of topics: from inertia, capillary attraction, and absolute zero, to the dynamo, the steam engine, and the index of refraction of light. At first sight it would seem that if the mathematical problems presented much difficulty and took much time, it would be better to omit most of them. But this is a mistake. The careful, consistent training given by mathematical problems is necessary to develop a habit of clear thinking, and to make real and useful the laws and principles of the subject.

Now, the mathematical knowledge, power, and skill needed by a beginner in physics should be gained in his course in arithmetic, algebra, and plane geometry, which in most schools are prerequisites for physics. At present he is given mathematical knowledge and power, but is deficient in skill to apply his knowledge to everyday, matter-of-fact problems. The physics teacher, if he properly trains his pupil, must give him this skill in the use of his mathematical tools; the equation, the demonstration, the proper use of ratio and proportion in studying variation, and the use of the graphic method of representation; assisted by the fundamental operations and processes of arithmetic.

The subject of physics is well fitted to do this; and, if the great purpose of physics teaching was to give skill in mathematical processes, it would be, perhaps, the best place to develop it. But the physics pupil can ill afford to spend the time for the training necessary to develop this skill. It is a matter of growth and development, and this requires time. We must first plant seed-thoughts and cultivate the budding ideas, before the harvest of useful knowledge, power, or skill is reaped.

Meantime the year speeds along, and pupils complain of the difficulty of the physics problems. Many falter discouraged with the double burden of mathematics and science.

Again, many physics teachers are not clear in their own minds as to the proper relation of the two elements just mentioned. This results in varied aims and efforts, and in most varied results. While growth comes as a result of effort; in this strenuous age, we must be satisfied only with intelligently directed effort with good tools. Anything less than this leads to a waste of time and strength. Educators cannot afford to be outdone in efficiency by our brothers in commerce and manufacture.

Therefore, my answer to the query propounded by the topic assigned is that the pupil's training in mathematics before he comes to physics should preclude the necessity for the teaching of any mathematics in the physics course that will require the presentation of new mathematical ideas or the development of a new standpoint from which to view the problems of that subject. The work of the physics teacher, as far as mathematics is concerned, is in developing further the mathematical ideas received by the pupil in his course previous to taking physics.

In a brief summary permit me to outline the principal points suggested:

1. The physics pupil needs mathematics to gain the ability to apply practically the subject.
2. He must use the mathematics as a means, not as an end; from its practical, and not its theoretical, standpoint.
3. This view-point, if not already acquired, must be developed, and for this development the physics course affords little time.
4. Skill rather than knowledge or power in mathematics is acquired by the physics pupil.
5. Physics should not be required to develop mathematical ideas or processes new to the pupil; e. g., the study of variation by ratio or proportion, or graphic methods of representation.

And, finally, may I urge upon you the truth that the practical aspect of mathematics is the one that not only in physics, but in life, will make for the greatest success?

THE REAL PROBLEM OF THE TEACHER OF MATHEMATICS

HERBERT E. COBB, LEWIS INSTITUTE, CHICAGO, ILL.

Upon the teacher of mathematics is being placed more and more strongly the necessity of determining how he can make his teaching more rational and truly educational. The rapidly increasing number of teachers who appreciate the immense importance of organized effort in the improvement of mathematics-teaching, shows that the problem is in the process of solution. Individual teachers are doing great service by trying out in a constructive way plans and methods; but to accomplish much of permanent value in the improvement of mathematics-teaching, there must be in all parts of the country large bodies of teachers who shall work together to accomplish this end. This problem can not be solved by the teachers in the universities, nor by the teachers in the colleges, nor by the teachers in the secondary schools; it must be solved by the joint efforts of all teachers.

Within the last two years associations have been organized in which vital questions of pedagogics have been under discussion, and the formation of these associations is generating new life and power in mathematics-teaching. From personal correspondence with the officers of these new associations I present the following summary:

The Central Association of Science and Mathematics Teachers was organized at Chicago, April 11, 1903. The membership is now two hundred. Last year a local center was organized at Chicago, with forty members; and March 26, 1904, the Northeastern Ohio Center was organized at Cleveland, which has fifty members. It is probable that two more local centers will be organized soon. The mathematics section of this association adopted as its official organ *School Mathematics*, which is the only journal published in this country devoted especially to secondary mathematical interests. Under the editorial control of Professor G. W. Myers, of the School of Education, University of Chicago, it promised to be a great power in the movement to improve mathematics-teaching, but lack of support has caused its suspension. Many new names, however, have been added to the subscription list since the suspension was announced, and as such a journal is needed to represent every suggestive aspect of theory and practice, will not every earnest teacher of mathematics make the publication of *School Mathematics* possible by becoming a subscriber, and by calling the attention of his friends to this journal?

The Association of Mathematics Teachers in New England was organized April 18, 1903. The constitution adopted states:

> The objects of the association are to increase interest in the science of mathematics, to secure improvement in the methods of mathematical teaching and in the selection of subject-matter, to establish close relations with cognate lines of work, and to promote social relations among mathematics teachers in schools and colleges.

The work planned for the immediate future is the formation of local sections in parts of New England at a distance from Boston, and the preparation of a syllabus of geometry. Two informal dinners were held in Boston last winter, at which the informal discussions on matters of interest in the teaching of mathematics were frank and valuable to all present.

The Association of Mathematics Teachers for the Middle States and Maryland was organized November 28, 1903. It has a membership of two hundred and fifty. Two local sections, one in Philadelphia and one in New York, have been organized. A little *Annual* is to be published which will contain all data of interest relating to the association.

The Association of Mathematics Teachers in Washington was organized at Seattle, December 29, 1903. It has thirty-five members. The association was formed principally for the purpose of improving mathematics-teaching. At the meeting in December a committee is to report on the question of the change of text-books which is contemplated in the state. The high-school course will be discussed under the following heads: (*a*) the extension of the work thru the whole four years; (*b*) the number of hours per week to be devoted to mathematics; (*c*) relative importance of the applications of mathematics as compared with mathematics itself; (*d*) is the separation of the course into algebra, plane geometry, solid geometry, and trigonometry desirable?

The Association of Ohio Teachers of Mathematics and Sciences was organized at Columbus, April 2, 1904. It has a membership of sixty.

Its object is specifically the improvement of the teaching of mathematics and science in Ohio, and the establishment of cordial and helpful relations among the teachers of these subjects. Provision is made for local centers in which may be studied closely and in detail those questions which particularly interest the teachers in the region concerned.

In a circular letter sent out by the secretary it is said:

That the time is opportune for united endeavor for the improvement of the teaching of mathematics and science is shown by the number of associations formed in this country within a year with this very object. The association just organized places the teachers of Ohio in their proper position in this movement.

A Kansas Association of Mathematics Teachers was organized at Lawrence, April 16, 1904. The membership is seventy-five. Meetings will be held annually in connection with the Kansas State Teachers' Association.

Plans are now under way for organizing an association of mathematics and science teachers at the meeting of the Southern Educational Association in Florida next winter.

At the close of this conference today the mathematics teachers of Missouri are to meet to discuss ways and means for improving the relations among mathematics teachers in this state. Reports from the mathematics sections of the State Teachers' Associations in Iowa, Nebraska, Indiana, and other states show that these organizations are actively interested in the improvement of mathematics-teaching.

Shall we not now complete the unification of our educational forces by forming a national association in which these regional, state, and local associations shall co-operate to make real progress in the teaching of mathematics?

THE UNIFICATION OF SECONDARY MATHEMATICS

CLARENCE E. COMSTOCK, ASSISTANT PROFESSOR OF MATHEMATICS, BRADLEY POLYTECHNIC INSTITUTE, PEORIA, ILL.

There seems to be a widespread feeling that we have gone too far in the separation of the various branches of mathematics, and that a return should be made to a more unified condition. It is my purpose in this paper to state a few of the principles which, it appears to me, should guide us in our efforts toward such unification. The limited time at my disposal will not permit me to give an adequate discussion of these propositions, but I trust that discussion will be carried on in your own minds.

In the first place, there is no such thing as secondary mathematics *per se*; the mathematics of the university of yesterday is the mathematics of the high school of today. We may, however, elastically define secondary mathematics as that body of mathematical thought, preceding and inclusive of the differential and integral calculus, which it is deemed desirable to teach in school and college.

The first proposition I wish to lay down is this: Secondary mathematics should be characterized by effectiveness—by adaptability to a chosen end. Mathematics is a method of thought, and its value lies in its efficiency as an aid in the acquiring of definite ideas. Algebra should be taught, not for its own sake, but for the sake of the ends it can serve. The mathematics of the university is critical, philosophic, and has its chief interest in the mechanism itself, the method. In the schools there is a difference. Here the supreme test should be, "Of what use is this?" "Will it be of real service to me in future work?" Judged by this test, the finding of the G. C. D. by the the Euclidean method has little value, while the essential importance of the theory of exponents is evident in its almost universal application. This principle of effectiveness acts as a selective test, and discards that which is curious but useless, or comparatively so.

The goal of this effectiveness is to be found in the fundamental purpose of mathematical study. Mathematics is a tool to be used in gaining and fixing knowledge. This leads to my second proposition: Secondary mathematics should be directed to the gaining of knowledge. This knowledge may be physical, astronomical, chemical, financial, geometrical, or analytical; but it is knowledge, and the power to gain knowledge that is to be striven for. The exponent, the equation, and the co-ordinate are to be mastered because they are of value as tools, they are not meaningless symbols fit only for puzzle-juggling. Real, vital, effective thought is behind them. Little is to be gained by acquiring mere dexterity in the handling of them, if they are to be used to no purpose. A friend of mine has acquired by long-continued practice such control over the muscles of his face that he can move his ears up and down, first one and then the other, and then both in concert; but it it is a worthless accomplishment. It is our aim to produce, not jugglers and sophists, but real thinkers who can think about real things according to the mathematical method whenever that kind of thought is needed.

As a third proposition we may say that the mathematical knowledge of a student can become efficient only thru long-continued repetition. The course in mathematics should be so arranged that what has been learned once shall be used as frequently as possible. A tool is not to become rusty and forgotten thru disuse. You cannot store up mathematical power as you would store screw-drivers and gimlets.

If these three propositions are true—effectiveness of tool, knowledge as a goal, and continual use—then it would seem to me that the unification of mathematics should proceed in three well-marked directions.

1. There should be a unifying of the various parts of a given branch. The now meaningless grind on radicals becomes thoughtful and purposeful when carried on in connection with the equation; square root becomes an absolute necessity when the pupil is required to express the root of a quadratic as a decimal. No better drill in fractions can be had than in the checking of fractional equations. And so, too, in geometry a unifying element is introduced when the theorems on the congruence of triangles are regarded as tools to be used in other investigations.

2. There must also be a co-ordination of the various so-called branches of mathematics. Mathematics is a unit; its branches are mutually interdependent, and one may not go far in one without finding that his further progress is made easier if he but take into account the methods and results of the other; the one aids in clearing up the difficulties of the other. The triangle can be solved only with the aid of the trigonometric functions. Why, then, should not the sine and the tangent be used freely in plane geometry? So again the intersection of loci and the solution of systems of equations present but one problem and should be studied as one problem. There is no better application of radicals than in mensuration problems. The methods of the calculus simplify the processes of higher algebra and analytic geometry. Break down the existing partitions, and make usefulness and not logical system the criterion; but let it be a reasoning usableness.

This co-ordination is made the more inevitable by the demands of modern science-teaching. The student of physics must be so equipped that he can think effectively in mathematical terms. The problems presented to him are not presented as problems in algebra or in geometry; they are problems in mathematics. The position of the study of physics in the third or fourth year of the high school would seem to require the early teaching of the elements of the branches named.

3. There should be a more intimate correlation between mathematics and the physical sciences. We have recognized this in admitting questions of finance and mensuration into arithmetic. No one hesitates to regard the finding of the cost of an object, or the finding of the interest on a sum of money, as an arithmetical problem, and yet there are those who will say that the tracing of the path of a ray of light thru a prism or thru a raindrop belongs to the realm of physics. I venture to say that the problem of a falling body is as much of a mathematical question as is the rising of the price of a commodity

Our failure to recognize this has led us to waste our time on cunningly devised gymnastic problems which have little or no value in themselves, while we have left untouched the rich field for the working of which mathematics was invented.

DISCUSSION

[REPORTED BY JOHN B. QUINN, INSTRUCTOR IN CENTRAL HIGH SCHOOL, ST. LOUIS, MO.]

A. V. CHESSIN, Washington University, St. Louis, Mo.—The views set forth in the papers presented (with the single exception of that of Professor French) were one-sided, as they regard mathematics as a mere tool of practical utility only, and favor the elimination of such subjects or topics as do not serve a practical use. The mental discipline derived from the theoretical side of mathematical science, I consider equal in importance to that of its immediate utility, and not to be ignored in any course of mathematics. I recommend the study of the French mathematical text-books as representing the highest type of theoretical excellence. I agree with the readers of the papers that a judicious selection of topics should be made; that complicated mathematical processes involving purely mechanical drill work should be omitted; also that many cases in factoring in algebra should be deferred till the theory of the subject could be unfolded, especially the quadratic trinomial.

MR. BURRILL, Fergus Falls, Minn.—Algebra and geometry should be studied separately, because of their difference in subject-matter and in methods of obtaining results. I believe that plane geometry as now taught has a high function in the development of the activities of the mind, and should not be abolished from the curriculum, as Professor French desires. I also favor "blue-penciling" in algebra.

GEORGE H. HOWE, department of mathematics, State Normal University, Normal Ill.—The mathematical course of study should bear directly on a pupil's experience, with a view to strengthening his grasp of mathematical truths by showing him how to apply them. In algebra I am in favor of the lessening of factoring, and regard much of radicals as of no avail. The subject of generalization ought to be emphasized as a symbolic expression of ideas. In teaching geometry the idea of trigonometrical functions of an angle as ratios can be made plain; and logarithms may be profitably employed in numerical problems.

E. R. HEDRICK, professor of mathematics, University of Missouri, Columbia, Mo.—I desire at this point to call attention to the fact that the trend of the discussion thus far shows that there is a recognition of deficiencies in methods and a wide divergence of views on subjects of detail which require earnest attention from all classes of mathematical teachers, and their close co-operation in dealing with the problems that confront them.

CHARLES H. SMITH, Hyde Park High School, Chicago, Ill.—I am in favor of a close organization of mathematics teachers and the fostering of a mathematical journal. The necessity for such an organization is shown by the good that has already come from the publication of the report of a committee of the Central Association of Science and Mathematics Teachers on "The Correlation of Mathematics and Physics." I believe in concrete methods in teaching mathematics.

R. F. KNIGHT superintendent of City Schools, Wichita, Kan.—Mathematics expresses in a formula an all-inclusive law, a truth that transcends the one-sided observation, often fallacious, derived from the mechanical methods of the concrete.

C. E. COMSTOCK, assistant professor of mathematics, Bradley Polytechnic Institute, Peoria, Ill.—With the aid of objects or concrete methods I have secured greater interest, clearer mathematical ideas, and greater progress in my classes.

JOHN S. FRENCH, Jacob Tome Institute, Port Deposit, Md.—A proper course of study in mathematics in secondary schools should have these three views: (1) mental discipline,

(2) utility, (3) fitting for later work. I believe that in secondary education we must regard the period of the child's receptivity, having regard to his mental growth; and hence, topics demanding logical treatment should be deferred till his logical faculty is developed. Secondary work should be primarily cultural, and secondarily tend to prepare the pupil for his later work.

PROFESSOR COLLENDER, one of the Foreign representatives from Sweden to the Fair, was asked to speak on the subjects discussed. He agreed with Professors Chessin and French that a study of French and German mathematics should be made by the teachers, but that their work should not be copied. He was impressed with the fact that the Americans had practical methods of doing things, which were worthy of study, and he believed that after they had assimilated French and German mathematics they would give expression to them in a new and practical way, as they have done in other things.

MRS. KLEMM, of the Cincinnati High School, Cincinnati, O.—I think that there is a neurological reason why the minds of children of high-school age do not comprehend much of the mathematics taught in secondary schools. Have others observed this condition?

MR. FISHER, St. Joseph, Mo.—I recognize the presence of the defect among high-school children, but think it is due to faulty methods of developing number-concepts in early training.

MR. KNIGHT, Wichita, Kan.—I agree with Mr. Fisher, and hold that the mind as a unit possesses the power to grasp certain abstractions very early; that the idea in number is largely subjective; that the mind must see numbers and look into the external world for its expression. I think that the methods of teaching mathematics half a century ago recognized this, and that they were successful.

S. B. TINSLEY.—I desire to make clear the fact that in the correlation method of teaching mathematics it is a mistaken idea that correlation is necessarily a use of concrete and abstract relations together; on the contrary, one may precede the other in order of development, but eventually they must be unified.

W. H. SMILEY, of Colorado.—The main thing to fear is that a body of mathematical knowledge not based on a rational sound growth becomes a *disjecta membra?*

MODERN LANGUAGE CONFERENCE

THE AIM OF MODERN LANGUAGE STUDY IN OUR SECONDARY SCHOOLS

GEORGE ARTHUR SMITH, HEAD OF GERMAN DEPARTMENT, HIGH SCHOOL, YONKERS, N. Y.

As the relationship of the nations has become closer, it is quite natural that the study of modern languages should be assigned the important place in the curriculum of our schools and colleges which it holds today. The increasing interest manifested in this branch of education has been so marked in the past twenty or thirty years that one writer on the subject has compared it to the revival of classical culture in the sixteenth century. We deal particularly with the French and German languages in this program.

It is conceded that a liberal education absolutely requires that every English-speaking person should have some knowledge of French and German, as a knowledge of these languages is indispensable to the mastery of literature, the arts, and sciences. Therefore the teaching of these languages in our secondary schools is an important subject for discussion. However ideal our theory of instruction may be, the limitation of time imposed upon us by the accepted curriculum renders it impossible for a student to obtain a mastery

of these languages, as time devoted to them is not sufficient for this, even in the case of those who go thru college.

It is a well-known fact that very few college graduates learn to speak or write a foreign language with fluency. There are those who think that because students do not speak German and French readily after a one-year or two-year course of study, something is wrong. It might be of interest to such persons to hear the words of one of our leading teachers of modern language: "The ability to speak fluently a modern language has in itself only a slight and low educational value. It is acquiring knowledge of a new set of symbols. Proficiency in this accomplishment is proportional to practice." Thus he puts this acquisition on the same level with stenography and telegraphy.

It is only in specific cases that a practical command of a foreign language is necessary to prepare the student for his life's work, and for such a case special schools and masters should be employed. Anyone who has received good training in our secondary schools has, let us hope, a good foundation for such advanced work.

Our high-school teachers have to deal with two classes of pupils: those who are preparing for college, and those who will finish their scholastic education at the end of their high-school course. In order that the college student may meet the requirements of the entrance examinations, he must have a good foundation. And this is equally imperative in the training of the student who does not intend to enter college. It is interesting to note, in this connection, that the dean of one of our oldest universities, in his report for the year just past, complains of the deficiency in the grammar and vocabulary of the students who take the entrance examinations in French and German, and strongly advocates a more thoro drill in these two essentials. The experience of our best educators has taught us that the aim of the high school is to impart a general culture, to broaden the mental horizon of the youth by bringing him in contact with the best that has been thought and expressed; and the study of language both ancient and modern is the gateway to the world's literature.

To many people the culture gained by study of a foreign language does not seem of practical benefit. Yet it cannot be denied that good results are obtained from this work, even tho it be of an elementary nature. In translating from one language into another, the discriminating and comparative powers of the mind are called into play, the reasoning powers are developed, and the mother-tongue is enriched. And systematic training of any kind develops a logical mind.

It is assuredly of great value in widening the horizon of the student to learn that there are other people whose lives, ideals, and achievements are as important as his own, and to whom he and his nation owe more than the American youth is apt to acknowledge.

Because a certain teacher has been successful, we naturally ask: What is his method? But the day of regarding method as the secret of a teacher's power has passed. The ideal teacher will receive suggestions and ideas from the study of a sincere method which will influence his own thoughts upon the subject, until gradually his own method is evolved and perfected.

The method must be the teacher's own; it may be so similar to another teacher's manner of teaching that it is classified as the same method. Method is the teacher himself; his character, experience, the knowledge that he has acquired of the subject, his attitude toward his pupils—all this has influenced the teacher to express himself in a certain peculiar manner which we call his method. It would be interesting and beneficial to review the many methods which have influenced teachers in the past, and show how many have rendered service to the teacher of today.

In the adoption of new ideas and theories of teaching modern language we must bear in mind that the aim of our secondary schools should be the rounding out of the intelligence of the student, enabling him to handle the language and literature, not only intelligently, but in a pleasurable manner. To do this, it is necessary for him to attain a certain degree of proficiency in reading, writing, and pronunciation, based upon a good foundation

of grammatical and syntactical knowledge. He should be able to read after a four-year course any modern literature free from unusual difficulties of the text.

This seems a gigantic task for the short time allowed us, especially when we realize that intelligent reading requires thoro mastery of grammar and vocabulary and familiarity with pronunciation. We must have a thoro grammatical training; but grammar does not mean language. I believe, however, that grammar can and should be taught thoroly and in an interesting manner, altho necessarily this work is known to be dry and mechanical. The memorizing and repetition of sentences taken from everyday forms of expression of the language aid greatly in its use. Aside from these set conversational exercises, the foreign language should also be used as much as possible in the class-room.

We cannot expect our pupils to write with any true command of the language. The written exercise must be essentially a grammatical exercise. The oral or written exercise of putting thought into a foreign language is a most profitable one, and particularly so if the work is founded on the text in use. Translation, the exercise most used in teaching a modern language, cannot be discontinued at any certain stage of the work. The object of the teacher is to get the student away from the English and to have him comprehend the original, but so long as there is doubt in the teacher's mind that the text is not clearly understood by the pupil, translation must be used. By demanding clear grammatical translation in keeping with the original we can begin to cultivate the literary sense of the pupil. He should begin sight-reading in the early stages of the work, as this has the advantage not only of increasing the student's vocabulary, but is an interesting exercise as well. The reading matter furnishes us with material for the explanation of grammatical principles, translation, and conversation.

I do not believe in thrusting the classics as reading matter immediately upon the student. I have been successful at first with short stories of literary merit. The vocabulary will be increased and the literary sense cultivated by covering much ground in the reading matter. As the student progresses, the literature should be treated in an æsthetic way, in order to develop the literary taste.

We should value highly any aids or illustrations of the text, such as photographs, maps, pictures, etc., or anything which will introduce the student to the foreign setting or conception of the story.

Our aim should be to prepare the student step by step to outgrow the English thought of the text, and teach him to read with literary insight and sympathy, so that when he finishes his course, besides having a good preparation for advanced work, his own personal life is enriched, he is broader and deeper in his sympathies and convictions, and a more useful and intelligent member of society.

DISCUSSION

Professor Robert Webber Moore, Colgate University, Hamilton, N. Y. — I am glad to note that so much of Mr. Smith's paper is in harmony with many ideas put forth by Professor Calvin Thomas. Thru his varied publications, the latter's work has gone widely into our schools, and no other pedagogical ideas are more acceptable or more likely to be productive of good.

Attention was called in the paper to the tendency of placing a practical—I should rather say, a commercial—value on the study of a modern language. The time generally given to the study of a modern language is too brief. Two years is not long enough. The purpose of a modern language may be considered, first, as practical or commercial, and, secondly, as educational. I do not believe that the high school is the place for instruction in a language with reference to its practical value. A high school is an educational institution, and a language studied in such an institution has an existence also from an educational standpoint.

Attention was also called to the disappearance of Latin and Greek as required studies in a school curriculum. The classics were at one time one of the most important influences of culture, but Greek and Latin are losing ground, and French and German are coming in to take their places. But if French and German are replacing the classics, is it therefore necessary to deviate from the accurate method employed in teaching the classics? With only forty-five minutes a day and twenty in a class, how much can be learned in French and German by a pupil, while the world about him is thinking, dreaming in English? But one thing can be done: habits and methods of careful, accurate work can be taught, and drill in grammar becomes a necessary part of instruction. The elementary grammatical principles of a language are not known by most boys when they enter college. Their knowledge of conjugation of verbs, the genders of nouns, etc., is very deficient; and a knowledge of these principles is one of the first things to be emphasized.

There are a number of interesting side issues which might be profitable to the pupil. Interest and love for the language may be aroused and sustained by reporting to the pupils the educational system of Germany; for instance, by showing the pupils that Germany is an active, growing, progressive country. By touching upon the literary and commercial activity of Germany, its government, educational system, recent investigations in science, the pupil can be made to feel that the German language is the language of a living, active people.

THE FUNCTION OF GRAMMAR IN THE TEACHING OF MODERN LANGUAGE

FRED DAVIS ALDRICH, MASTER IN MODERN LANGUAGES, WORCESTER ACADEMY, WORCESTER, MASS.

The "little red schoolhouse," dotting alike the New England hills and the prairies that came to us thru Jefferson, is likely to go down in tradition as an educational institution almost perfect in its time and sphere. Our fathers sing to us its praises; some of us, favored ones, have been born early enough to affix to it the seal of our "jackknife's carved initial," and will never tire of heralding it as an institution where fads had not displaced common-sense, and where education, and not accomplishment, was dispensed. Nevertheless, the attitude taken toward the rule of three, Webster's speller, and the art of parsing ("passing," as they generally called it) was far from practical. She who could construe, according to the stilted models in vogue, the twisted sentences of *Paradise Lost*, or who could name in order the capes of Van Diemen's Land, had the open sesame to the intellectual aristocracy of the district. And yet, after such a one had, in the fête of examination day, parried the favorite thrusts of the astute committee man, she was capable of perpetrating any error, such as proudly complaining to the visitors crowded on the back seat: "He hadn't ought to ask me them hard questions."

This work in parsing, proper enough as a means of necessary drill (and the English teaching of today needs more of it), had overstepped its bounds, and had become an end in itself. Its practical value was by nature secondary, and thru the neglect in applying the knowledge gained by it it had lost its indirect practicability. Our pupil just mentioned considered her parsing as an art, and, as some never allowed their religion to disturb their morals, she did not let her grammar interfere with her inherited habits of speech. Still her neighborhood canonized her as a grammarian; and so she was.

In the teaching of modern languages, grammar is no more an end than it was in this old-fashioned parsing. We do not start out with a pupil by promising that he is to become a specialist in grammar. We are to develop in him, first, the ability to understand the thoughts of others as couched in a foreign language, written or spoken; secondly, the power to express himself somewhat in that language. As an incident of this work comes mental training; as a sequence, literary culture and enjoyment. These ends, however, are ulterior

and follow in the footprints of linguistic study. The essential is the faculty of understanding and of expressing in the new medium. The *raison d'être* of grammar is commensurate with the aid it can bestow in the acquisition of these faculties. Whenever the study of grammar can aid, directly or indirectly, in acquiring the ability to translate, read, or write the written language, understand or produce the spoken, it has its function. Wherever it does not so aid, it is not merely useless to our purpose, but it stands in the way of progress. If it leap its bounds, it is a usurper, and the result is unsymmetrical as the parsing of the "little red school house." When a genius begins to feel an appetite for the charms of abstract grammar (and there must always be such), then let us turn him into the staked pasture where these peculiar plants grow. But let us feed the growing flock on the succulent grasses whose assimilation gives the nutriment of normal and sane progress. Grammar, then, in the modern-language work of secondary education, is simply an aid, and should be so regarded by colleges in their demands, and by preparatory schools in their work.

Having thus restricted the sphere of grammar, let us turn to the consideration of its content; that is: How much, and what, really aids? To discuss this wisely, we must clearly see the fundamental theory of grammar. We find these definitions: the science of language; the theory of human speech. But these are academic, and do not help us any. What is its real nature?

A child (we will take a French child) hears its older brother say over and over *mon père* and *ma mère*. It imitates. It hears also *mon frère* and *ma sœur*, and imitates again. Other names he hears, some preceded by *mon*, some by *ma*. After having heard some tens, or hundreds, of such groups, he gets the idea, either from a reply to his curiosity, from unsolicited instruction, or from his own unaided logic, that certain words take *mon*, others *ma*, to convey the same idea. This conception is grammar, and the statement of its principle is to this child rule 1. Other modifying words, such as *le* and *la*, are noticed, and their use noted. When there arrives the concept that words which require *mon* require *le*, this child's grammar begins to be complex, and he needs a term to clarify and express his thought—a term that he has never needed with his playmates. He may at first use, in the limbo of his ideas, "*mon*-word." Later he learns that his elders have agreed to call it "masculine." After a while he attains the dignity of finding written language within his ken. He finds *il parle* spelled sometimes *il parle*, sometimes *ils parlent*. He remembers it as an isolated case. His habits of liaison may possibly throw some light upon it. But other cases of similar structure rush in upon him, and the concept in grammatical agreement in number is soon called forth; this is a concept based on spelling and the consequent pronunciation.

This homely illustration, whatever its psychological accuracy may be, shows the true nature of grammar. It is a series of generalizations which the untutored acquire slowly, the tutored more rapidly. Ages before our era the mental processes of the human family had developed the labor-saving devices of generalization, and in language it finds one of its many spheres. I believe that all grammar, whether inflection, syntax, or etymology, falls under this category, and we may therefore deduce the definition: Grammar is the body of generalizations concerning spoken and written languages.

With this definition in mind, we can better discuss the content and form of grammatical teaching. Grammar is to be an aid, and its nature is generalization. Hence the function of this line of teaching is to assist the pupil in making his own all generalizations that help, maturity and previous knowledge considered, in the practical knowledge of language. But all generalizations help at one stage of progress or another. Hence the problem reduces to these questions: When shall the conquest of the various generalizations be stimulated? Shall their teaching precede or follow work on the text? That is, shall the instruction be deductive or inductive? How shall the manner of teaching vary to adapt itself to the different grades?

I assume it to be my part today to trace the foundations that underlie the subject in hand. The detailed consideration of the queries just propounded, and others that are

involved, is for you. Still my time allows me to pursue the main line of thought, as it now lies before us, a little farther. That is, shall the teaching be inductive or deductive? Which gives the most timely aid? Shall we equip our pupils with a panoply of principles and rules, and send them forth thus armed to attack the living language; or shall we from the start work with them on the text, suggesting and formulating the right generalization as it is needed? The answer is neither simple nor easy. In equivocal terms, *it depends*. In general, I believe the latter method is the natural one. This term "natural" has been so abused that I hesitate to employ it, but it is taken here to designate the channel that offers the least resistance to knowledge seeking an entrance into the normal mind. This method of having the grammar keep pace with the difficulties met minimizes the waste of effort, and does not cloy the student's appetite for this course. But still its wisdom *depends;* depends upon various considerations. First, and perhaps most important, the maturity of the pupil.

A young child is busy with induction; the deductive faculty appears later. Hence, the younger the class, the greater the field for induction; the older the pupil, the more should we resort to deduction. A child in the first year of the ordinary secondary course, or in the grammar grades, should be given the text primarily. Grammar should follow slowly, but steadily. The pupil beginning in the later preparatory years or in college, especially if he has studied the classics, can profitably digest at first considerable grammatical teaching. The order of teaching for the younger should be from the simple to the complex, and a jumble of pronouns, verbs, and adjectives does not disturb him. The more advanced pupil is often confused by a heterogenous mixture of topics and can never get his soundings. He may have faith in his pilot, but he instinctively likes to recognize the lighthouses and to watch the compass himself. If his helmsman should be lost overboard, he wants to be able to bring the vessel to the nearest port, and ship another pilot whose course he can connect with his previous bearings.

The other circumstances upon which this question depends are essentially "local issues." Among them may be mentioned inadequate preparation of the teacher, the necessity of a method that at the outset demands hard work outside of the class in order that the subject may have due dignity amid a pressing curriculum, and the prevailing character of text-books. These considerations in general tend toward the deductive method, but they should all be regarded as accidental, and we must seek to overcome them.

But are we not drawing the line too sharply between induction and deduction? For, after all, the deductive faculty at once amplifies every new bit of territory seized by the inductive. Whatever may be the theory, they are in practice united, and the ideal teacher should seek to connect them. Let me illustrate what seems to me a proper combination of the two. A beginning French class meets for the first recitation. It is supplied with some simple text. Pronunciation and translation are dismissed from our present discussion. In the first line the word *le* is met. It is translated "the," and needs comment no more than *et*, "and." But in the next line *la* stands, also translated "the." The class has not been concerned by it, but the teacher must arouse curiosity by a question, "why?" Some will doubtless suggest the explanation (there is almost always some overwise pupil to anticipate the teacher's climaxes). At any rate, the explanation is made clear, other instances on the page adding their corroborative testimony. So far pure induction. Suppose we consider it wise to extend the principle to *un*, already found, but whose feminine has not appeared; deduction combined with induction. The present tense of *avoir* can be developed in the same way from one or two forms observed. This process can be applied progressively to a whole realm of grammar. Difficulties prematurely met may be disregarded or postponed. The point at which the generalization should be made in any special case, and thus substitute therein deduction for induction, will depend upon the good judgment of the teacher in the light of the attendant circumstances. I have tried this method in actual practice and have found nothing like it to hold the interest of the pupil on the grammar side of the work. It is hard for the teacher, but it pays. And

he can hold before him as an ideal the happy day when the student shall grasp a new form or structure with the avidity of a botanist in coming across a specimen unknown to him. In a course where the time is short it is often impracticable to pursue this method and make the required progress in the required time; but in a course of proper length, certain connections may be made with the college examinations at the proper time by a capable and patient teacher. The demand for the grammar has equaled the supply, and the product is thus salable.

The reference just made to botany, a scientific subject, is itself suggestive of a final word. Consider the old way of teaching physics. The mastery of a descriptive text-book was the main element of the work. Now and then the instructor would illustrate the text by an experiment, choosing generally those that are spectacular. The parallel in modern-language teaching is found in drill in grammar supplemented by a little work on the text. Reduced to the absurd it would be where the teacher would on rare occasions bring from a musty closet a sentance of real French or German, hold it up before his wondering pupils, and call attention to its fine points to illustrate the grammar they had studied. He might even deal out choice passages on cards as rewards of merit for faithful grammatical plodding.

Now, in physics experimentation is the basis of the work; the descriptive portion merely formulates and sets in order the results of the student's research. Problems drill him in the practice of his generalizations. In modern languages we find the parallel in taking the text first, treating grammar as the systematizing of the student's discoveries, and insisting on work in composition to fix these principles.

Grammar is then simply a means to an end, and we must not allow it to overstep these bounds. Fire, the old saying goes, is a good servant, but a tyrannical master. So is grammar. And in the problem before us teachers, our work lies today in reducing it to a servitude which it shall willingly render and which shall be readily received.

DISCUSSION

Otto E. Wieland, High School, La Crosse, Wis.—The paper gave a good definition of the function of grammar. We are not to teach modern languages, however, as we do the classics. Grammar gives generalization; it systematizes and correlates the new with the old, also the new language with the mother-tongue. The conjugation of the English verb, especially the formation of the compound tenses, is difficult for the pupil to comprehend. When pupils take up the study of a foreign language, they are often unprepared in English grammar, and hence it becomes necessary to teach the fundamental principles of English grammar as well as those of the foreign language.

RAPID READING

W. E. JOHNSON, GERMAN DEPARTMENT, HIGH SCHOOL, ST. JOSEPH, MO.

Should there be a combination of the intensive study of one or two texts with more rapid and less intensive reading of a number of texts selected from a common list?

I should like to introduce this paper with an illustration. When the physician has diagnosed his case, he has yet to determine what medicine he will administer. It is sufficiently easy to find medicines that would antidote the disease, but some of these, while doing so, would dispose of the patient, and are for that reason not desirable. Again, there are remedies which, taken in certain quantities, are invaluable, while the same materials, taken in other quantities, much larger or much smaller, are deadly. Of all

the medicines equally potent to reach the case, that would be chosen which was considered least harmful in its by-effects. The point of skill, then, is to discern those remedies in a given case which combine the greatest potency with the least degree of harm that would follow their use.

It is well, possibly, to treat methods of instruction in like manner. Therefore let us discuss the *pros* and *cons* of the question, taking up, first, the negative; secondly, the affirmative; and finally drawing a constructive conclusion from this discussion.

What faults, then, can be lodged against the method under discussion?

1. *Lack of thoroness.*—The argument from this standpoint would be that whatever is worth doing is worth doing well, and that time spent in superficial reading would be better directed to a more thoro study of the classic seriously pursued.

2. *That it dissipates the purpose and energy of the mind*, the argument being that the diversion of the attention to a variety of objects in rapid succession is weakening to the power of concentration, which is strengthened by the serious pursuit of one subject at a time.

3. *That the result would be a jumble of words and phrases, and a confusion of ideas* having no educational value and really harmful.

However, the foregoing arguments could be properly directed against wrong methods only. Yet these are three objections likely to be urged against attempting to cover more ground than can be carefully studied.

Let us see whether or not there are advantages which commend the method; if so, we can compare the merits of suggestions arising from opposite view-points. The following may be mentioned:

1. By going over a wide range of expressions and ideas, for the sake of variety, a more easy and varied and less stereotyped style is acquired.

2. By this method the student is acquainted with a greater portion of that literature which makes it worth while to study the language.

3. The mind may in intensive study utilize the materials which have been thus gleaned from the wider experience, and thus form for itself a completed whole from the fragments so gathered. Intensive study must render fruitful the results of the wider experience, and is itself enriched by the variety of material thus obtained.

Thus the reasons for and against rapid reading appear to oppose and neutralize each other somewhat as do Kant's antinomies; but whereas Kant discovers fallacies in opposing arguments which render them equally worthless, we here see features which render both objections and commendations useful.

Guided by these suggestions, one may proceed to the formation of a constructive theory, but this must be derived from the following germinal data: (1) the general purpose or object in view in the study of the language; (2) the psychological principle.

What, then, is the purpose or object in view in the study of the language? I conceive it to be twofold, viz.: (1) cultural, including training in literary intuition, an enlargement of the capacities of the mind for feeling and sympathy, and the formation of accurate standards as to the correct in art and life; (2) utilitarian, including the acquisition of the art of expression, or the practical mastery of the language.

And what is the psychological principle involved? I understand it to be that of *growth by assimilation.*

Permit me another illustration. Place a teacup under the water faucet and turn the spigot. Even if the tank be emptied, upon stopping the flow suddenly you find that you have less than a teacup full of water. So from an attempt to do too much rapid reading—more than the student is prepared to do profitably—little, if any, benefit is derived. All s waste except that which is retained and made a permanent possession.

Putting the question in a little different form, let us again ask: Precisely what place or use is filled by rapid supplementary reading? I think the answer is this: It presents to the mind of the student a variety of formal expressions, thought material, and literary ideas, from which it may assimilate those most readily assimilable, according to the law of natural selection. No two minds will get the same things from the materials presented. Some will retain certain parts, others other parts; but both materials and opportunities are presented to all by the process.

The good derived from this supplementary course depends upon two conditions, viz: (1) the capability of the student, and this again depends upon his previous training—his preparation; as before remarked, all will not receive the same, because the preparation of mind is not uniform; (2) the character of the work read.

The result of all portions of the work should be a homogeneous whole, otherwise it is not scientific and its value is by so much discounted. Therefore the selection of material for supplementary reading is important.

Since the process in the mind of the student is that of natural selection, the conditions in each individual case will best indicate what pieces can be used with greatest profit and least waste. The suggestion of a few principles which in a general way should govern the selection might be helpful.

1. The selection should be comparatively easy. That is, it should be quite elementary in comparison with the classic studied. In other words, it should be of easy vocabulary and free from constructional difficulties.

2. It should be interesting in itself. That is, one that pleases the average reader, and has merit as a piece of literature, in order that it may be edifying to the literary sense. Otherwise a very important part of the effect would be lacking.

3. It should be one that increases the student's knowledge of the literature studied. That is, it should fit into a systematic outline or scheme of study of the literature, in order that the pupil might make due progress in the literary aspect of his knowledge.

4. It would be well if the piece were in some way related to the classic studied; as, by the same author, of similar subject-matter, produced in the same period, or related by some other circumstances. Adherence to this rule will minimize the difficulties of the work and heighten the benefits derived therefrom.

Variety of experience is desirable in any line of activity. But in the midst of this variety there must be something constant from which the activity of the mind can proceed, and which will serve to unify the results of that activity.

Unquestionably, therefore, rapid reading as a supplementary exercise has a legitimate place in a schedule of modern-language training; but, aside from the preparation of the student for the exercise, and the character of the selection, the method pursued and the quantity of work attempted have much to do in determining the value of the work.

The scope of this paper will not permit any discussion of the method. A few suggestions as to quantity may be ventured:

1. To read too little is to leave the pupil hungry, as it were, after whetting his appetite by means of the drill he has received. The result would be a failure to exercise the very powers which one has created, the method as a whole would be one-sided, and the condition of the student's mind would be similar to that which in the physical man is due to lack of nourishment.

2. Too much rapid reading would in itself be a waste. The result would be similar to that of physical gormandizing. It would necessarily divert the energies of the mind from definite objects of study, and rèally hinder the development of precision of expression and clearness of literary conceptions.

3. It is hardly necessary to add that any diminution of the proper amount of intensive study for the sake of rapid reading can but result in the omission of system and a scientific basis in the student's knowledge of the language.

Who, then, shall determine the quantity of rapid reading to be used in any given case? Only the teacher who alone knows all the conditions is competent to do this, the proper quantity depending on both teacher and pupil.

Suppose, for instance, that during the first year in German the student should have respite from dry grammatical drill and sentence work in Guerber's *Märchen*, Seeligman's *Altes und Neues*, or Müller and Wenckenbach's *Gluck Auf*, or other work of similar character, for, say, one day in each week. It appears to me that both the teacher's and the pupil's task would be agreeably flavored by the process.

Suppose, again, that while reading *William Tell* the class should take up Schiller's *Balladen* as a variant; and again, during the study of *Die Harzreise*, if those wonderful little poems of Heine's, whose lines linger and vibrate like overtones in ear and heart, were utilized in a similar manner, the benefits of the entire course would be very much heightened thereby.

The publishing houses are supplying an increasing multiplicity of books of all grades

and varieties, from which a definite list can easily be made up for each class, that particular book being selected in each particular case which appears to supply the special need.

In any branch of study certain allowances must be made for the spontaneous activity of the student's mind. This spontaneity is increased by study, but it is quite as important to give it scope and opportunity as to prepare the mind for it; otherwise much of the preparatory work would be fruitless. It is this, largely, which individualizes the student.

Rapid reading of supplementary matter furnishes this opportunity, and in the exercise the mind, like a magnet, seizes those expressions and conceptions most capable of being assimilated to previously acquired knowledge.

DISCUSSION

Miss Josephine D. Brooks, Shortridge High School, Indianapolis, Ind.—The most obvious danger in rapid reading is that of slipshod translation. Unless the rapid reading is carefully safeguarded, our pupils will turn a French passage that has been polished and repolished until it would satisfy Boileau himself, into English that none but an experienced language teacher can understand. This carelessness leads to the loss of the enjoyment of the original as well as of the use of his mother-tongue.

One way to obviate this difficulty might be to make the pupil understand that the object of each day's lesson is not the same. Let the pupil know that on given days in the second or third year—not before—the number of pages will be increased, that every idiom is to be understood, but that *comprehension*, not *translation*, is the object of those particular days. Test the pupil in class on any troublesome idiom or construction, but do as little translation into English as possible. Let him for this day read as he would read a magazine article.

On the other days let the pupil know that his preparation of a given lesson involves a study of certain idioms, or the giving of a résumé, and insist on "tolerable English"—to use the phrase of the Committee of Ten. Let the pupil see the target, and then be merciless if he takes careless aim. We shall send out from our classes comparatively few linguists, and these few must lay firm foundations. But the desire to send out a large number of readers is a legitimate ambition, and the best way to make readers is to form the habit of rapid reading.

One of the most insidious of the dangers of rapid reading is that the progress is deceptive. Herein lies a danger and a stimulus: a danger, because the overcomplacent pupil fondly fancies that by stumbling on to the sense of a passage he is fast becoming a linguist. The pupil becomes facile rather than accurate, showy rather than substantial. But this very deceptive quality may be the stimulus to give courage and confidence to the weak pupil.

The teachers may also fall victims to this deceptive progress by measuring the progress of the class by the number of pages read. But we must never fail to ask: How much did our pupils carry away from this book? What new sense of form? What admiration of character-sketching? What pictures of heroism or of colossal egotism have been indelibly stamped upon our minds? Are the idioms of everyday life becoming second or even third nature? Can the pupils tell the story of the day's lesson with increasing fluency and accuracy?

Doubtless some of these questions can be answered by rapid reading, but the mastery of idiom comes only by painstaking, intensive labor.

However much or little the time spent on rapid reading, that devoted to prose and grammar must be considerable. Drill in the vernacular of the grammar as well as in conversational idiom must be constant, and it is this drill that defines the limits of rapid reading, at least in the class-room.

The method of introducing rapid reading must be left largely to the individual teacher.

It may be begun carefully in the latter part of the first year in the form of sight translation. Later, supplementary reading may be introduced, but sight translation in class must not be dropped.

In conclusion, let us by all means use rapid reading, but not abuse it. If possible, let us choose such material as offers the least for intensive work; let the supplementary reading be fiction or picturesque history—reading of such a character that the pupil will not look upon it as dull and hard; reserving the dullness and hardness for the class-room, where the teacher's enthusiasm may counteract some of the dullness. Let the extensive reading in the class-room be systematic, so that the pupil may know the aim of each day's preparation; and then we may hope to lead our pupils into a larger use and fuller enjoyment of the treasures to which we have striven to give them the key.

J. Perry Worden, instructor in German, Central High School, St. Louis, Mo.—I favor more or less rapid reading in connection with intensive reading, and for these reasons: It gives variety of subject, variety of style, variety of work. Seldom can a text be found of sufficiently absorbing interest to hold a class a whole term, and it is most desirable to have some change of subject to prevent their becoming tired. Intensive work can never be escaped; we have it constantly in the grammatical, philological, biographical, geographical references. How to adapt these two kinds of reading, intensive and rapid, is a problem for each teacher to solve. The intensive work may be taken first and then rapid reading; or the week may be divided, giving a certain number of days to intensive work and one or two to rapid reading.

W. E. Johnson, head of German Department, High School, St. Joseph, Mo.—I wish to emphasize one or two points in this connection. In the early stages of his work the pupil is not ready to concentrate his mind. Later, in the third and fourth years, he has the power of concentration and discrimination. Hence at this time I should strongly advise the study of *one* text intensively. The plan pursued at State University of Missouri in devoting one whole semester to the study of Schiller seems to me a good one. Two months is too short a time for *William Tell* or a classic of that type. Devote at least a whole term to a *man*. Unify the work of the last two years is my plea.

CONVERSATION AS A VEHICLE OF INSTRUCTION IN MODERN LANGUAGES

DISCUSSION

Max Batt, Agricultural College, Fargo, N. D.—Conversation has a place in the class room. There are two classes of modern-language teachers. One, growing smaller every day, prefers to translate from English into German. Some teach a modern language solely by this method. The other class follows the natural method. The first method does good work, but attains no more than the instructors of the classics have accomplished; the second has the advantage of arousing interest, but there are also some disadvantages some objections to it, and it must be used with caution.

There is a golden mean between these two, however, which can be introduced in secondary schools. It is impossible to use conversation in a foreign language at once in the class-room. Conversation must be introduced gradually. A difficulty, however, arises in selecting a topic for conversation. What shall we talk about? is the question that naturally presents itself to the minds of most teachers. Two or three suggestions might be offered to overcome this difficulty. Questions based on the text might be asked. These are often found in the back of the text-book, and I often have my class turn to these questions and let the pupils read them; then I have them close their books and I ask the questions.

Prose-composition work may also form a basis for conducting conversation in class. After a few anecdotes have been translated correctly into German, assign one or two of these to be retold in German for the next recitation. The pupil has then a means of learning the correct form, since the anecdotes have been previously correctly translated in class.

The chief aim in teaching is perhaps to arouse and sustain the interest, and this method proves satisfactory. It gives the pupil power and facility in expressing his thought in the foreign language.

Another method of introducing conversation into the class-room is by the use of questions on the grammar. This takes up too much time, however, and hence does not prove entirely satisfactory.

GEORGE ARTHUR SMITH, Yonkers, N. Y.—I am very much in favor of conversation in modern-language teaching, and believe it can be used to great advantage in the class-room. But we must not expect too much from it.

I believe that a teacher of modern languages should by his enthusiasm lead his pupils to think that his is the only subject worth teaching, and thus he can lead his pupils on to love the language and literature. A teacher might pursue some such method as this: Let one of the pupils read a passage in German; another translate the passage and touch upon the syntax and grammar; a third paraphrase it. The teacher must make use of variety. I appreciate very much Dr. Worden's attempt, but the pupil can scarcely master the speaking of German in such a short time.

GEORGE W. NEAL, Lincoln College, Ill.—The importance of conversation in the teaching of German and French cannot be overestimated. We too often lay stress on other things, but forget the far-reaching effects of inability to speak the language. It sometimes happens that a college professor celebrated for his scientific knowledge of a language cannot speak a word of it. President Harper of the University of Chicago set about to create the ability actually to speak a foreign language, and for the purpose of accomplishing this end French and German clubs were organized at the university for the professors and students. The plan has been very successful in Chicago, and perhaps some such plan might also be introduced into the secondary school with much success.

ILLUSTRATED AIDS TO THE TEACHING OF MODERN LANGUAGE, WITH SPECIAL REFERENCE TO THE TEACHING OF GERMAN

J. PERRY WORDEN, INSTRUCTOR IN GERMAN, CENTRAL HIGH SCHOOL, ST. LOUIS, MO.

Four difficulties at least retard the teacher of modern language in the secondary grades: the daily environment of English, the necessary limitation of time, the pupil's prejudice and consequent lack of interest, and a chronic inattention growing out of the free-and-easy discipline in too many American homes and grammar schools. How, then, may modern language be taught so that these obstacles shall most rapidly and effectually be removed? What can the average instructor do to transport his pupils to another sphere, to make one minute do the work of two, to awaken a new and healthy interest and quickly overcome any possible dislike, and to fix and hold the attention of the growing mind? With peculiar force will these questions come to all who realize the advantages of easy and rapid acquisition of knowledge, but especially to those who toil in systems where modern language finds no place in the grammar school, and the pupil approaches the higher grades with not even the knowledge of the German alphabet.

To cross the sea to the familiar life so closely associated with the language to be studied would, of course, be ideal for escaping that ocean of English which here incessantly beats against the consciousness of the child; but this being unattainable by the majority of pupils, realistic foreign scenes, with their strange and fascinating features, must be brought to

them. Nothing will clothe the child so well with that atmosphere which eliminates the mother-tongue and concentrates the attention as foreign-made pictures of foreign life, skillfully introduced for discussion when the associated language is presented. The realism gives a practical turn to the exercise, the varied scenes draw out the fire of the enthusiastic instructor and wake up even the easy-going teacher, and the long, slavish following of the classical tradition in the dry grammar and reading methods is at an end. The pupil learns to spell *H-a-u-s* only after seeing the German *Haus;* and, following a simple psychological law whereby pictorial representations of German objects studied call up instantly their corresponding German words, he never associates *Haus* with his own h-o-u-s-e.

If, then, illustrated aids conduce to idiomatic mental processes, say in German, to thinking German thoughts—quaint objects, like words in sentences for sight-reading, suggesting other related objects—what apparatus can we use, and to what extent and how? For small classes—and none other should be given a teacher if the best results are really desired—photographs, loose engravings, and copies of foreign illustrated journals, pinned on the wall or displayed in frames with adjustable mats and movable backs, would serve the purpose very well; but the ideally equipped room of any size will have a stereopticon lantern ready for use at a moment's notice, that landscapes, streets, interiors, and people may appear vividly before the pupils. Language charts, such as the old-fashioned German wall *Tafeln*, with their stiffly-outlined horses and trees, and their formal question primers, will find no place in a wide-awake language room: mechanical in their every detail, they lack the sympathetic atmosphere needed to illuminate the inquiring mind as to the real character, the customs, and the environment of another people. Those pictures *not* designed for language study, but in which the teacher has a live, if not a personal, interest, will prove most serviceable, though many of the new, artistic German school pictures, such as are so fully displayed in the remarkable German educational and printing exhibits, and some of the French school posters, may be found very adaptable; and that teacher who knows the familiar life of the country in question, thru residence or travel abroad, will be most successful in the use of illustrated aids.

Somewhat naturally perhaps, the best application of pictures in the teaching of modern language will be the most difficult—the introduction of conversation or, as some prefer to term it, of oral practice. Not merely because sound arrests the attention does oral work give vivacity and stimulate the pupil; in conversation, however simple, the boy or girl is given something to do, and feels that he is no longer a bystander, but one whose presence is needed in the class-room to make the occasion a success. His curiosity is aroused, he is encouraged to think, his intelligence is quickened, he is called upon to exercise his judgment, the child is won! Hence the opportunity to hear the language spoken and to try their tongues at it should be afforded the pupils from the first day of actual work after the organization of classes. Far more ground may be covered in a given time by conversing than by reading or writing—that is, if the teacher is at home with his subject and apparatus, and has a clear idea of what he wishes to do. No repetition should be made of the old-time mistake of arranging the matter in stereotyped chapters or even in groups; the teacher must be alert to his own environment and the life progressing before him—he must see the room he is in, note the weather without, hear the bird at the window, discover the personalities in his pupils, and bring all into relation with the pictures employed. More than this, he must think less of dignity and more of sociability, even to the occasional introduction of fun; he must hold somewhat to local themes and color, and adopt an address and side reference more or less personal; and he must maintain discipline by friendship, respect, and interest.

Wherever practicable, the language taught should be the medium of instruction, and yet neither time nor energy should be wasted in a bungling attempt to teach foreign grammar with a limited vocabulary. How to conjugate correctly in German may certainly be learned without the beginner ever having heard of *Plusquamperfekt*, and

if the movement be from idiomatic German to English and then back again to German, rather than from any sort of English to incorrect German, that *Sprachgefühl* so desirable will steadily be inculcated and grammatical peculiarities easily grasped. Dialogues, necessarily the usual form of oral practice with a class, should often give place to enlivening or amusing narrative, adapted to the grade; and anecdotes, selected or composed by the teacher to accompany the picture discussed, should occasionally be presented direct to the hearing, and translated or retold by the pupil. Here as elsewhere, if there be frequent repetition of easy colloquial sentences, tending to facilitate the reproduction of natural forms of expression, the tongue and the ears will prove efficient aids to memory; and repetitions and answers to questions in their fullest form, demanding the use of many words under proper relations, will conduce to the largest vocabulary possible. If inaccuracies creep in and grammatical or other deficiencies be detected, the teacher must pause long enough to repair the breach; and in all conversation care should be taken to speak slowly, to pronounce distinctly, and to insist on slow, distinct answers. If these points be kept in view, this oral work will encourage precision of thought and statement, the child will learn to see and report accurately, and more substantial results will be obtained than thru the overenthusiasm aroused by the false and *unnatural* "natural method," promising far more than it can perform, and ultimately leaving the student misdirected, crippled, and discouraged. Let no teacher imagine, however, that he will accomplish what may be done unless he works systematically and with enthusiasm; for only a tireless energy will prove the superiority of the system, and that it is more adaptable and practical than the so-called psychological methods of either Gouin or Betis. Leading, comprehensive sentences are not easily produced off-hand, and conversation, while flowing smoothly, to be really effective should flow with a purpose. Such a purpose is attained in the introduction to foreign people, assuring a better understanding of the classic texts later on—one of the strongest arguments in favor of this plan; for a single word such as *Schloss*, with its corresponding illustration suggesting the rise of the mediæval town, may contain more than a glance at past or contemporary familiar life. If *Gemütlichkeit* is untranslatable into English, it is so because neither the feverish American nor the more seclusive Briton knows how to enjoy everyday life as the German; and if ever we are to understand what *Gemütlichkeit* really means, we must join the German in his family circle or accompany him to the open *Garten*.

It is not proposed, however, to introduce these pictures of foreign life only to further the conversational side of modern-language teaching; the system suggested differs from the "natural method" in that it does not train the ear and organs of speech alone, but exercises the eye as well. From the first, provision should be made for writing down much of the language spoken—either by the teacher using the blackboard at the conclusion of the sentence, thus enabling the pupils to copy the forms; or by his dictating or even spelling the words or phrases. Brief, carefully written exercises should also occasionally be required of the pupils, and discussed by the teacher before the class. As the child progresses, short geographical, historical, or biographical sketches, the facts for which may or may not previously have been given in English, may be prepared; poems, such as *Die Lorelei*, referring to selected pictures, may be turned into everyday prose, and even original German exercises may be prepared as text for illustrations, and delivered orally in the class, care being taken to prevent the danger incidental to an inexperienced handling of the dictionary. Some such exercises by my pupils I have brought with me and will show you in connection with the pictures before you. In more advanced classes pupils may interrogate and answer each other as to the contents of pictures; and illustrations, whenever applicable to the text, may be used as a basis for composition and oral work, the teacher being assured that nowhere will the pupil appreciate the pictorial aid more. Publishers have been short-sighted in their failure to illustrate more extensively the modern-language texts.

Such are a few of the possibilities of the method which so admirably adapts itself to the teacher's own individuality and employs so fully whatever he has of peculiar gifts.

By each teacher must the plan be tried before its merit will fully be apparent, but then will be seen the force of the opinion expressed by the Committee of Twelve of the Modern Language Association, on p. 25 of their 1900 report:

> The attempt to give scholars by eye and ear, by description and by the use of objects and pictures, a correct and vivid idea of foreign life, has been carried farther by the phoneticians than by any other school but there is no reason, save the lack of rightly prepared instructors, why this feature should not be introduced into every method; the neglect of it defeats one of the principal objects of modern-language study.

DISCUSSION

Professor Moore, of Colgate University, Hamilton, N. Y.—This topic has been most interesting to me for years. I have been delighted with what Dr. Worden has shown us this afternoon, the way he planned and worked out his teaching, and his method of combining pictures with conversation. Pictures can be made of great service in instruction. They enable one to create the actual feeling for the language and literature, to make the subject a reality to the pupil. Concerning Berlin, for example, I have collected a hundred pictures, and I have another hundred about Schiller's *Wilhelm Tell*, and another hundred about Goethe's *Faust*. So I have pictures of the Rhine, and one may show pictures concerning good German literature such as "The Song of the Bell," "Lurlei," and others. I do not place any emphasis on the great educational value of such pictures, but they do help to sustain the interest. Such pictures, too, teach the pupils something of German art.

A. Gideon, professor of modern languages, State Normal School, Greeley, Colo.—I was obliged to be absent myself during some of the readings, and perhaps someone has in the meantime touched upon the subject of great importance to me—phonetics. I was delighted with what Dr. Worden said. I myself have made some experiments in the same field, but perhaps not so completely and possibly not so well. However, I expected more reference to phonetics by the same speaker. At a recent meeting of modern-language teachers in Colorado every one of the speakers insisted on the importance of the study of phonetics by teachers. They all declared it practicable for the high school. I say it is not only practicable, but absolutely imperative, especially in the extended high schools; that is, the schools extended downward.

A study of phonetics is an idispensable requisite in the training of every teacher. It gives the spirit of language, it gives correctness and exactness, which are the chief features of mathematics as a culture study. Unless the pronounciation in reading a text is correct and exact, the proper spirit for the language is not cultivatd.

Phonetics as a science need not be introduced into the high schools, but it is essential that the teacher study phonetics from a scientific standpoint, so as to be able to introduce its results in the class-room. The elementary stages are especially concerned—that is, the elements which are fundamental—because they form a basis upon which everything else but a slipshod translation depends.

DEPARTMENT OF HIGHER EDUCATION

SECRETARY'S MINUTES

FIRST SESSION.—WEDNESDAY, JUNE 29, 1904

The Department of Higher Education met at 2:30 P. M. in the library of the Hall of Congresses. In the absence of the president and vice-president of the department, the secretary called the meeting to order. W. S. Chaplin, chancellor of Washington University, was made chairman of the meeting. About two hundred and fifty persons were present.

The topic for the afternoon discussion was: "Coeducation in Relation to the Other Types of College Education for Women: (*a*) The Separate College; (*b*) The Annex; (*c*) Coeducation; (*d*) The Modification Known as Segregation."

G. Stanley Hall, president of Clark University, introduced the subject in a paper setting forth the general sex-problem involved.

Papers dealing with the general subject from other standpoints were presented by Charles F. Thwing, president of Western Reserve University; R. H. Jesse, president the University of Missouri; and James B. Angell, president of the University of Michigan.

A brief discussion followed, which was participated in by G. Stanley Hall, R. H Jesse, and Emil Saxbäck.

At the close of the discussion the chairman announced a Committee on Nominations as follows:

William T. Prather, president of the University of Texas. G. Stanley Hall, president of Clark University.
William L. Bryan, president of the University of Indiana.

The department then adjourned to meet at the same place on Friday at 2:30 P. M.

SECOND SESSION.—FRIDAY, JULY 1

The second session of the Department of Higher Education was held on Friday afternoon, July 1, at 2:30, in the library of the Hall of Congresses. William T. Prather, president of the University of Texas, was called to the chair.

About two hundred persons were present.

The topic for the afternoon was: "Present Tendencies of College Athletics:

E. Benjamin Andrews, chancellor of the University of Nebraska, opened the exercises with a paper on "The General Tendency of College Athletics." This was followed by a paper by William H. P. Faunce, president of Brown University, on "The Historical Development of Athletics," Frank Strong, chancellor of the University of Kansas, closed the discussion with a paper "The Effects of Athletics on the Morale of the College."

There was no general discussion.

President Prather presented the report of the Committee on Nominations, as follows:

For *President*—Richard Henry Jesse, University of Missouri.
For *Vice-President*—William Lowe Bryan, University of Indiana.
For *Secretary*—Joseph Swain, Swarthmore College.

On motion, the report was unanimously adopted, and the officers were declared elected for the ensuing year.

On motion, the department adjourned.

JAMES E. LOUGH, *Secretary.*

PAPERS AND DISCUSSIONS

COEDUCATION

G. STANLEY HALL, PRESIDENT OF CLARK UNIVERSITY, WORCESTER, MASS.

Every discussion of coeducation that is fundamental and not merely superficial must be based on the doctrines of heredity. For animals the test of domesticability is whether or not the species can be made to breed well in captivity. The same test applies to civilization, which is a collective term for the sum of man's efforts to domesticate himself. Races perish under systems that do not fit the laws by which life is transmitted. Educational systems are an artificial environment to accelerate and direct civilization, and their supreme test is their effect upon heredity, which is the most precious and most ancient form of wealth and worth, and one ounce of which is, in Huxley's well-known phrase, worth a ton of education. It is now well established that higher education in this country reduces the rate of both marriage and offspring so that in round numbers less than a fourth of our male and only about half of our female graduates marry, and those who marry do so late and have few children. As Augustine said that the soul was unhappy until it could find rest in God, so I shall assume that man, and still more woman, without wedlock and parentage is immature, discontented, more or less *détraqué*, and that all other vicarious joys of life can never quite atone for the loss of this felicity. Finally, I think it established that mental strain in early womanhood is a cause of imperfect mammary function, which is the first stage of the slow evolution of sterility, and which, as Bunge has shown, if it is once lost in a mother, can never be regained in her posterity. I do not, of course, assert that all these results can be traced to coeducation, nor do I deny that in some respects this has real advantages. I shall speak today, however, only of a few of its disadvantages which are now less realized.

From puberty on, boys and girls normally differ from each other rapidly in every tissue and proportion of body, and in every quality of soul. This difference increases up to full nubility, and is greater in civilization than in savagery. The list of even those secondary sexual differences that are now known is a long and growing one. There is in girls the monthly cycle, the processional and recessional of which has about it the majesty of one of nature's greatest rhythms, and which gives an ebb and flow to all the tides of woman's inner life, makes it larger than man's, and has made her an object of his worship. This she should emphasize rather than repress, and in the normality of it she should glory as the full efflorescence of her womanhood, altho the feminists, perpetuating the barbaric idea of impurity, would minimize and make her ashamed of it. To the proper establishment of this function everything else should for a few years be subordinated.

Once more, woman is more generic than man, nearer to, and a better

representative of, the race, more liable to be injured by specialization. Her very altruism is a constant temptation to her to take out of her system more than it can bear. She is more intuitive, less discursive, has a far richer emotional life. If man is a political, she is a religious, animal; more conservative, less radical. Her function in childbearing and in the domestic circle is larger than man's.

In a word, everything indicates that sex-differentiation should be pushed to the uttermost, and instead of the approximation which coeducation favors, woman should be made more womanly as well as man more manly. Even in a family budding girls and boys now draw apart in interests, tastes, and occupations. To run with the other sex is condemned during the early "teens" as at no other stage of life, for then nature prompts each sex to round out its own sphere apart.

How the high school interferes with these laws of nature is well seen in several recent studies which show that a large percentage of girls actually wish they had been born boys, and the ideals and tastes of many more are increasingly masculine. This has led to the fear that we are slowly "developing a female sex without the female character." More than half of the girls in Chamber's study chose male ideals. "Femininity," he says, "seems on the verge of extinction." The reactions against the old restraint have gone so far that the ideals of a girl are at variance with the interests of the race. She often wants identical education, and regards any effort to differentiate as involving danger of relapse to old conditions. Now, without womanly ideals the female character is threatened with disintegration. Again, in the rapid feminization of our schools the woman teacher gives free rein to whatever masculine ideals she may have, sometimes as if she unconsciously felt that, as male teachers were becoming extinct, she must cultivate a bisexual character.

By association with boys, girls, even if they are not roughened in manners, have less tendency to develop the distinctively feminine qualities, to be less proud and conscious of the grace and charm of ideal young womanhood, which is the most attractive and stimulating thing on earth to men. They are a little lacking in respect for their own sex as such and do not feel its full dignity. Sexual selection shows that there is a sense in which woman has made man by bestowing the unique stimulus of her approval upon those qualities which she deems best. Perhaps her chief responsibility in the prenuptial stage is to thus praise aright. It is said that association with boys makes the high-school girl less emotional, impulsive, romantic, her conduct more thoughtful, her life more regular. If so, this I hold to be bad. The consensus of women teachers to the contrary notwithstanding, I urge that there is something wrong with the girl in the middle "teens" who is not gushy, sentimental, romantic at least at times, but who has developed in manners and soul the repose and poise that "marks the cast of Vère de Vère."

It is said that the presence of girls is humanizing for boys; but I insist that there is something wrong with a boy of this age who can be truly called "a

perfect gentleman." If he is not a milksop, a lady boy, or a sneak, he is morally precocious. This pin-feather age ought to be—I don't quite like to say a little rowdyish and barbaric—but certainly uncouth, rude, recalcitrant to prim conventionalities; or else vigor is sacrificed to form. True virility at this stage of life does not normally take a high polish. A blind, but strong and right, instinct, ripened thru millennia, now impels the boy to get away in certain respects from both girls and women, be they sisters, schoolmates, mothers, or women teachers; and if he does not actually leave school where their influence predominates, one of two things is likely to happen: either he suffers subtle eviration, and his masculinity swerves from its proper orbit; or else his reaction to femininity is excessive toward coarseness, perhaps vulgarity or he loses due respect for women from being held to too close quarters with them. Thus the boy forced to see too much of girls is sure to lose something, either by excess or defect, from the raw material of his manhood.

At eighteen or nineteen, the age of college entrance, the average girl, if unwarped by ill-health and undistracted by merely scholastic mentality, is well cadenced in her physiological life, can endure great strain if it is well timed, has acquired much self-knowledge and great self-respect, and has intuited life with amazing sagacity. During her college years she ought to be nearer to genius and more beautiful than she can ever be again. These are years when the statistics show more of her sex marry and become mothers than during any other quadrennium of life. These are years of greatest fecundity and of least mortality in childbirth. She is far nearer the apex of full maturity than is her male classmate of the same age, and has less developmental transformations yet to undergo than he. Hence, her mating instincts normally focus on men five or ten years older than herself. She excels her boy classmates in perception, memory, association in time and space, and far more yet in insight in character and motives. At no age is her mental superiority to the other sex so great. She knows her male classmate in some respects more truly than he knows himself. This he feels in his dumb way, and resents both her mental superiority and her constant presence. He, on the other hand, seems to her somewhat crude, and so far below her ideals of his sex that there is some disenchantment, unconscious tho it be; and thus slowly an independent, unwed life comes to seem, if not more attractive, at least less inconsolable. She turns more easily to plans and careers of self-support, is more confident that she can compete with and excel her callow male classmate, because she does not realize—and this is the frequent tragedy in woman's life—how much more those of her age will yet develop, and how far more advanced than her classmates she will find her real male competitors in life; for the former will grow in mind and character long after she has ceased to do so.

Perhaps familiarity relaxes sexual tonicity—one of the most precious of all educative influences; and boys cease to be at their best, and grow unchivalric, ungentlemanly in their conduct in the presence of girls; while the latter grow

careless in conduct, manner, and attire. Not only do boys feel themselves seen thru, but girls come to feel them not so much worth while as they seemed at greater distance. Thus the romance and idealism that have always guilded this relation wear off to dull commonplace, and marriage for both sexes has perhaps lost one of its chief charms.

But we hasten to say that this is only one aspect of this myriad-sided problem with which we must now grapple. For many boys the constant association with good girls, while it may repress the gross thoughts to which young men are often prone, stimulates thoughts of wedlock before it is time for those who have entered upon the long and hard apprenticeship to an intellectual career. In a man, dreams of marriage involve plans of bread-winning and reduce patience with the long way necessary for mastery. The girl is ripe, and the boy of equal age is not; and if he marries his classmate a year or two after graduation, he is often handicapped in his career, and led perhaps to teaching or other occupations that involve a compromise with his ideals, and perhaps even the permanent abandonment of his chosen profession. The realization of this fact, tho it be unexpressed, is not conducive to the highest ideal of marital affection, especially if, as in most marriages of equal age, the girl has had more than the usual initiative. Statistics are not likely soon to show us how often the instincts to temporary celibacy which ought to dominate the young man who is preparing for expert intellectual leadership in ever more overcrowded professions are thus interfered with. Nor do they yet tell us whether this is more or less common under modern educational influences than elsewhere. That this often results from these conditions no one doubts.

Again, not only does the girl far more often end her education with college than the boy, and not only does he graduate younger at the same age and more immature than she, but, save only in preparation for teaching, the boy must far more often than the girl win his livelihood by what he gets in college. Sooner or later he realizes that he must acquire a knowledge that is practical and can be put to work. Purely humanistic and culture studies are more often the end to her, while for him they are not so much a means as a beginning. The higher education for women at its best is general, and for man it must more often culminate in a specialty. In the latter the boy often has his first genuine intellectual awakening, such as the girl had earlier found in literature, art, language, history. A man is uneducated today who is not a master in some field, small tho it be. He must reach the frontier at some point, know what it is to exercise the power of original thought and research, to be an authority and not an echo. Girls acquire, appropriate, accept authority, but by the general testimony of teachers they are inferior and go to pieces when texts are laid aside and they are thrown upon their own powers. It is just this that evokes the best that is in a boy.

Thus, again, we see the methods should be different, and increasingly so thru college. Under book and recitation methods girls will always excel, and boys grow listless and slow; but by research methods boys leave girls far behind.

Under the old routine, martinet, and mass-training ways girls thrive and boys languish. All educational colleges show spontaneous segregation in topics, girls taking most kindly to those with bookish methods, perhaps crowding out the boys, who in turn most frequent the practical and experimental courses. If the same option were opened between the methods of acquisition and those of investigation in the same topic, the same segregation would follow, with girls in the former and boys in the latter. There are topics, however, not a few, where the presence, and still more the predominance, of girls favors mechanical old methods at the expense of those that are newer and better. Thus the conservatism of the female instincts often interferes with educational progress.

In the time at my disposal I have thus, as you see, touched only a very few points in this great discussion. The higher education of women involves all the difficulties of that of men, with many new problems of its own. The girls' colleges think it wisest to train for self-support, and hold that if marriage comes, it can best take care of itself. I urge the precise reverse. Prepare for parenthood and domestic life, and if it does not come, women are thus best prepared to support themselves. The bachelor woman is often magnificent in mind and body. I marvel at her achievements; I love and profit by her companionship. It is well in every community that there should be many who, in Herbert Spencer's terms, develop individuation even at the expense of genesis. The influence of many of these women upon both boys and girls, at least in their high-school age, is often beneficent in ways that a mother's could not be.

The problem of prolonging the prenubile stage of apprenticeship to life so as to bring the greatest good and the least evil to the largest number is an immense one, of which the best of us yet know but little; but we may well rejoice that today so many large-souled and insightful men and women have emerged from, and are trying to forget, the sad thirty years' war of sex against sex, in which one sex at least was made a sect; and are now slowly preparing themselves with all available knowledge, and with a sense of its profound importance for the future of our land and race, to attack in a scientific way and in a religious spirit what is probably the most momentous educational question of this generation.

COEDUCATION AS IT HAS BEEN TESTED IN STATE UNIVERSITIES

R. H. JESSE, PRESIDENT OF THE UNIVERSITY OF MISSOURI, COLUMBIA, MO.

The real home of the state universities is the region west of the Allegheny mountains. They are found on the Atlantic coast also, but there the dominant power in higher education at least is in universities privately endowed. In the Mississippi valley we have a few institutions of higher learning privately endowed and truly admirable, but here the state universities hold the chief

power. Their influence is manifest in the private schools about them. The University of Chicago, Washington University, the Western Reserve, and the Stanford would all be prompt, I am sure, to admit that they have been powerfully affected, and for their good, by the state institutions about them. Thruout the land west of the Allegheny mountains all the state universities, so far as I can remember, are coeducational in graduate and in undergraduate work. Because of their influence, the same is true of the best colleges and universities privately endowed in the same territory, with the exception of Western Reserve at Cleveland, and Tulane at New Orleans, each of which, I believe, has a separate college for women. The University of Chicago segregates women in the freshman and sophomore years only. This was done solely because of local environment. It is safe, therefore, to say that all the best colleges and universities, with perhaps a half-dozen exceptions, from the crest of the Allegheny mountains to the Pacific ocean, stand for coeducation among graduates and among undergraduates; while on the Atlantic coast the only great representative in undergraduate work is Cornell, and perhaps Boston University.

No college or university known to me has ever been dissatisfied with coeducation after trying it fairly. It is claimed that the University of Chicago tried it and abandoned it. This is not true. Some concession it has made to local environment, but that is all. With fair accuracy, therefore, it may be said that sexually separate colleges, some for men and some for women, prevail on the Atlantic coast, and that in the Mississippi valley and on the Pacific coast coeducation is dominant. I am expected to speak of it as tested in state universities only, for graduates and for undergraduates.

Will you allow me to give some personal experience, not out of a desire to talk about myself, but because in this way can my views best be set forth? I never saw coeducation in a fitting school, a college, or a university until I became president of the University of Missouri. To that post I came full of rules for regulating the relations of the sexes in a more delicate way than in my opinion the blunt western people had realized. With me came all the notions of a southern man in regard to the way in which women should be guarded and segregated and protected from rudeness and pleased with delicate attentions and high consideration. But with the opening of the session there came a storm of work which forced me to attend to certain things and to postpone everything else. It was nearly thirty days before opportunity came for applying my principles for regulating the association of the sexes and for shielding women from rude contact and for making them the recipients of the high consideration of which my head was full. On examination it appeared that the sexes were regulating themselves in the most admirable manner, and there did not seem to be a gap anywhere for my fine-spun theories and chivalrous intentions. The western man pulls off his hat sometimes awkwardly and sometimes not at all. His cravat is not always tied in the latest knot, and his shoes sometimes fail to reflect the image of his face;

but generally to the marrow of his bones he is reverential to women. Moreover, good traditions in my university had been established by coeducation for twenty-one years. My women students seemed singularly exempt from languid sentimentality and from tittering gush. For the space of thirteen years I have found it impossible, except in details, to improve the way in which men and women of their own accord associate together in the University of Missouri. A greater measure of comfort for the women in their dormitory and in their private parlors has been secured. Sociability under good leadership has been encouraged, so that manners have improved in men and in women, so far as grace of expression is concerned. Women have been discouraged from taking rooms in houses that provide no parlors for the reception of guests, or that furnish lodgings to men also.

Here ends the short catalog of my achievements. Quickly converted to coeducation, I have stood firm in the faith for thirteen years. Nothing that wise men of the East may say would shake that faith, so far at least as the state universities are concerned. In thirteen years, with a faculty greatly adorned in former years with cranks, and not destitute of that decoration even now, not more than four or five complaints have been lodged with me against women on any account whatsoever, and most of these were for failure to attend lectures. The woman, having conceived in each case a dislike for the teacher, had begun to cut his classes. An interview, beginning with mild reproof on my part, followed by a shower of tears from the eyes of the woman, and then by a strenuous effort on my part to close the interview, was all that passed, the culprits returning to their lecture-rooms dutifully.

The ratio in my university is that of three men to one woman. The average of health among the women is better than it is among the men, their habits being more regular and their amusements less exhausting. The average scholastic attainments is as good among them as it is among the men, if, indeed, it be not better. They choose their electives quite as wisely as the gentlemen do. They give no trouble whatsoever in respect to discipline in things either great or small. They exercise a benign influence over the men, unconsciously, inevitably, and irresistibly. There is no jealousy of the one sex against the other. The men would defend the honor of the women and protect them, if occasion therefor arose, instinctively and immediately. They would resent the slightest aspersion upon them.

The sexes are separate in many things. This comes by instinct. Coeducation does not mean, as some eminent men in the East seem to think, a commingling of males and females in everything. Women do not play football with men in the West. So multitudinous are the errors into which the wise men of the East fall that for them at least assurances in elementary things are necessary. Nor do men of the West play basket-ball with women. I beg the pardon of all people west of the Allegheny mountains for telling of these elementary things. My women students at least do not lodge in houses that refuse to provide parlors in which to receive guests, nor do they, except

under extraordinary circumstances and with the consent of our adviser of women, have rooms in houses that lodge men also. Women sit in the same class-rooms and laboratories with men, pass thru the same corridors, read in the same libraries, and attend receptions, dances, and other entertainments for both sexes, but always under irreproachable chaperons provided by the hosts themselves. In regard to seats in the lecture-rooms, no instance has occurred in thirteen years in which supervision on the part of the teacher has been necessary. The instincts of gentlemen and ladies regulate these things naturally. The most womanly women known to me in Missouri and the most manly men are my own students. All these things are true also of every other state university known to me.

In my own town there are two separate colleges for women, in each of which the pupils are jealously guarded. It requires all the authority of the university, and some assistance from divine Providence, to prevent forbidden attentions from my men to these girls. These attentions are nearly always accepted by the girls, and sometimes are encouraged by them. I am not speaking of things that are really guilty. But on my own campus men and women associate in natural and sane ways where they should associate, and they of themselves separate where they should separate.

Let it not sound irreverent to say that sometimes it seems to me that Providence ought to apologize to some of our eastern friends for the methods employed by nature. Thruout the animal and the vegetable world male and female, each according to its kind, spring up from common parentage, side by side. Segregation does not appear anywhere, so far as I can discern, except in the colleges of the eastern world. An eastern man myself, but living now in the West, I claim the right to speak the truth, whether it be complimentary to either region. The East is superior in many things to the West, which, in turn, is superior in other things. The law of compensation prevails over our country. If it is important to segregate women in colleges, why should they not be segregated in libraries, in churches, in theaters, at concerts, at balls, and at receptions? Why should we not, following Mohammedan custom, separate our boys and girls in the nursery? Children come to us at birth male and female. They grow up together in the same nursery, by the same fireside, praying together at the same mother's knee, and are blessed by the benediction of a common father. The children of a neighborhood go to church together, to Sunday school together, on the streets they walk together, they play together. Why, when puberty is established, should they be zealously segregated, as if the establishment of puberty were a sin? Why should they be made conscious of puberty? Is not unconsciousness, so far as it can be sanely maintained, the better way? Of all methods of classification that by sex seems to me the most illogical. It is physiological rather than pedagogical.

Let us not injure coeducation by pushing it too far. In New England and the middle states there are many sexually separate colleges well equipped.

I see no reason for forcing all the colleges for men to admit women, and *vice versa*. For the sake of experiment, I do wish that there were two or three coeducational institutions of higher learning in New England and the middle states. It would at least reduce the volume of baseless imaginations. West of the Allegheny mountains, with few exceptions, all secondary schools, colleges, and universities are coeducational. The people are abundantly satisfied. Why should we change it? Those who are zealous against coeducation have in general had little personal experience of it. Their talk has a long-distance telephone sound.

There are some conditions under which coeducation ought to be modified. Where institutions of higher learning are situated in large cities and draw students from the surrounding country, even I believe that segregation during the freshman year at least, and possibly during the sophomore year also, should be adopted. Bright girls frequently finish the high-school course with honors at sixteen or seventeen years of age. With a rashness that passes understanding their parents send them to a college or university in the heart of a great city to choose their boarding places and to manage their own affairs. With the innocence and trust of the country still upon them, like lambs, they are thrust into places where saints and wolves alike abound. The presidents of such colleges might well establish for women separate dormitories, separate instruction, separate regulations, and a separate quadrangle, during the freshman and possibly during the sophomore year also. If these young women, far from home influence, are allowed to mingle freely with men, it is very difficult to maintain separate rules for them; and separate rules are necessary in such cases for their protection. This, and this alone, led the University of Chicago to segregate its women for the first two years. It seems to me that this is better than segregating them for four years, as is done at Tulane, at Western Reserve, at Columbia, and at Harvard. That, to say the least, seems needlessly long, even in great cities.

All universities are coeducational for graduate work. The University of Chicago, because of its environment, is coeducational from the beginning of the junior year. Nearly all western colleges are coeducational from the beginning of the freshman year. There is no reason known to me why any university should segregate its women at all, unless it be situated in the midst of a large city. Even in such a case I should consider the question debatable only for the freshman, and possibly for the sophomore, year.

In my opinion, separate colleges for men and for women are often good; still better, other things being equal, is the university for men with an annex for women; but best of all for each sex is the coeducational university, in which men and women, side by side where association is wise, and apart where separation is wise, acquire together and partly from each other that training of mind, morals, body, and social habits which fits them best for larger usefulness.

In conclusion, let me call attention to the fact that the Universities of

Michigan and Missouri were the first among American institutions of higher learning to try coeducation. Each of them began to admit women in 1870. The two universities that have tried coeducation longest in the United States are by accident placed together this afternoon on the witness stand. My experience you have heard. The experience of President Angell will abundantly sustain coeducation.

THE ADVANTAGES OF CO-ORDINATE (ANNEX) METHOD IN EDUCATION

CHARLES F. THWING, PRESIDENT OF WESTERN RESERVE UNIVERSITY, CLEVELAND, O.

[AN ABSTRACT]

Among the advantages mentioned were: (1) The co-ordinate method represents the university atmosphere. This advantage applies to the co-ordinate method in contrast with the separate college for women. The ordinary college for women, be its parks never so charming, its acres never so numerous, its halls never so inspiring, does not impress the beholder with its scholastic conditions. It is Baliol, or Trinity, or St. Johns without the other colleges—charming, beautiful, useful, but lacking the atmosphere of scholarship which helps to make Oxford Oxford, and Cambridge Cambridge. The value of such an atmosphere for both teacher and student is great. It represents noble traditions, inspirations rich and significant.

(2) A second advantage belonging to the co-ordinate college is the advantage of the more ample equipment. This advantage, too, is to be studied in contrast with the separate college. Libraries, laboratories of all departments, can be made more ample under the co-ordinate method. Such equipment directly and largely contributes to the highest interest of the whole academic community.

(3) The co-ordinate method, moreover, removes men and women from constant and intimate association with each other. There are many kinds of coeducation. There is the lecture coeducation, in which students listen to the same lectures. There is also the laboratory coeducation, in which they work side by side in the same laboratory. There is the recitation coeducation, in which they recite at the same time and to one teacher. It may also be said that there is the "walking" coeducation, and the "dining" and the "calling" coeducation. Some colleges have all of these degrees; other colleges seem to have only the less marked. Between them there is a wide and deep chasm. Advantages belong to each sort. But under the co-ordinate method no such constant or intimate association is promoted. Parents are usually willing to accept both the conditions and the results of young women and young men being together; but they wish their being together to be under the best

conditions. They are reluctant for life's choices to be made without proper supervision.

(4) Positively, the co-ordinate method tends to put men and women into proper association. They dwell in the same university atmosphere. They are subject to the same general conditions. They are loyal to the same scholastic standards. They may or may not be taught by the same teachers. They are near together, but not too near; they are remote, but not too remote. The association of college men and women should be natural, healthful, wholesome, inspiring to scholarship, quickening to large womanhood, purifying to strong manhood.

COEDUCATION IN RELATION TO OTHER TYPES OF COLLEGE EDUCATION FOR WOMEN

JAMES B. ANGELL, PRESIDENT OF THE UNIVERSITY OF MICHIGAN, ANN ARBOR, MICH.

I have no paper to present. I have come with no special preparation for this meeting. I was asked to offer such suggestions as might occur to me after listening to the papers of our distinguished friends.

I have no *a priori* reasoning, no psychological analysis of the sexes to lay before you. The collegiate coeducation with which I am familiar is a historic growth. I am no doctrinaire on the subject. In the West for many years before coeducation prevailed in the colleges the boys and girls studied together in the schools, as they lived and played together in their homes, and studied side by side in the Sunday school, and worshiped together in the church. In due time their parents said: Since they have traveled together without harm to the very gates of the college, why may they not study side by side in the college? So public opinion, not the whims of theorists, forced open the doors of the colleges that the girls might have the same opportunities of education as their brothers. For forty or fifty years this joint education of the boys has been carried on in the West, and, so far as I can see, without those unhappy results which our philosophical eastern friends seem to dread.

We were at first often told that the health of the girls could not endure the strain of college work. But many of the girls in college obstinately persisted in growing stronger with each year of study, and in general the girls who did not attempt to do other things carried their work with as little injury to health as did the boys.

Then it was said that some kinds of work presented in college were too severe for women. But it was soon demonstrated that there were no studies in which some women did not excel.

Again, it was protested that marriages between students of the two sexes would ensue. This prediction was fulfilled. Many of the happiest marriages

I have known resulted. And are we not justified in maintaining that an acquaintance of four years in the class-room furnishes as good ground for a wise choice of husband or wife as a chance acquaintance in a ball-room?

And those of us who recall the large number of gracious and cultivated women who, having graduated at coeducational colleges, are adorning happy homes, and enriching school or church or their community with beautiful lives, in which every womanly charm is conspicuous, may be pardoned if we are not much alarmed at pictures of the supposed effects of coeducation in depriving our daughters and sisters of womanly bloom and delicacy.

One great public advantage I must briefly refer to. Before women were admitted to men's colleges, they could not generally secure so good an education as men. On this account, tho they always formed the large majority of teachers in our schools, the instruction they gave was seriously defective. The fact that they knew this was depressing to them and deprived them of confidence, even when, as was sometimes the case, their education was not inferior to that of the men. But when they were graduated in the same classes with men, they not only had as good an education, but the knowledge of that fact inspired them with confidence, and brought new strength and vigor to their work. So that coeducation thru women has affected the whole grade of work in our public schools.

As it seems to be by divine ordination that the sexes are compelled to grow up together, I think that in the West at least we shall continue to believe that they may be properly educated together, under such reasonable regulations as good sense will suggest.

THE GENERAL TENDENCY OF COLLEGE ATHLETICS[1]

E. BENJAMIN ANDREWS, CHANCELLOR OF THE UNIVERSITY OF NEBRASKA, LINCOLN, NEB.

The net tendency of the athletic systems in American colleges, and of their working, is good. Evils and infelicities exist, but they are in a way to be eradicated, or at least kept under. Recent years have emphasized, more than any before, the excellent effects of athletic exercises upon college communities. These exercises certainly further students' health. The University of Nebraska is able to demonstrate statistically that its second-year pupils average to be stronger and healthier than those of the first year, its third-year pupils sounder still, and its fourth-year constituency physically the most perfect of all. Each individual class, also, betrays this progress in health as it climbs the years.

The proportion of college students directly engaging in athletic sports is much larger than many critics seem to suppose. In football, for instance,

[1] An interesting and valuable paper on "College Athletics" by President R. H. Jesse of the State University of Missouri may be found among the papers of the Department of Physical Education.—EDITOR

your 'varsity builds up not only its lusty gang of scrubs, but, besides, an eleven, and perhaps a second eleven, in each of the four classes. At least double all this number is more or less stirred to practice, by the hope of being needed in the play at some point; so that a little 'leven leaveneth nearly the whole lump.

Athletes help out-and-out non-athletes to mind their bodies. They render attention to physical vigor fashionable. But for athletics fewer colleges would have gymnasiums or regular gymnastic training, and institutions possessing these helps would find it far more difficult to keep them popular and efficient. This influence is of special worth at seats of learning not having military departments.

Nothing, of course, can be more ridiculous than making bodily development one's main business. College sport is good, within limits and in its place, as a means to physical and mental health and to large life. We exercise to live; we do not live to exercise.

The benefits of students' physical training are not confined to the conservation of their health and their mental alertness for the time being. The good is indefinitely various and of incalculcable reach. Systematic exercise in college often cures grave and even congenital ailments. It relieves many complaints which cannot be cured otherwise. It wards off physical and mental ills to which persons of a sedentary life are especially liable. It lengthens the active years and the total years of men and women who are free from specific diseases. It lessens in violence, in frequency, and in duration such attacks of illness as befall quite strong people. It puts ease and cheer into hard work, and good temper into all human relations. It tends to impart permanent strength, sanity, and order to the mind, and to create that firmness of will without which, particularly in the great crises of life, the most gifted of mortals become the sport of fate.

In schools whose pupils are mainly from cities physical education is imperative. City youths are apt to be ill developed in their vital parts. Even if they play much, which few of them can be persuaded to do, they rarely engage in the vigorous exertion needed to steel the muscles of heart, lungs, and diaphragm—that first-class benediction conferred on farmers' sons and daughters by the hard work they have to do. Most city young people coming to college still have time to perfect their physical condition, but not one in a hundred of them will take proper means to do this save under some such impulse as a faculty rule or a student custom.

The country Hercules imagines that he, at any rate, can neglect health with impunity. He is a fool. Country physique is rarely quite strong, and almost never symmetrical even when strong. Young men and women from the farm need to continue their bodily drill and to systematize it; else baneful, if not fatal, weaknesses are likely to occur in special parts, or a general breakdown, from which recovery will prove impossible. I have known Titans from rural homes come to college and to early death. Being hardy, they fancied

themselves sure of continuing so. Sad illusion! They had been accustomed to taxing exertion, and the sudden and total remission of this proved fatal.

Indoor practice is, of course, to be prized. All students should use the gymnasium long enough to locate their weaknesses and to acquire the idea of method in schooling the body. But outdoor exercises, too, should be indulged in as often as possible, partly for the benefit from fresh air, and partly for the invaluable zest of play.

It is at this point that match games get their license. They are indispensable to the full and free play of the zest for play. A reasonable number of match games, duly regulated, are not only admissible, but desirable. And it is legitimate, pedagogically, that the competition should be as fierce as it can be and still be fair. There are certainly several considerations more important than winning; yet what appears to be the ideal of some, a match where the players care little or nothing which side wins, would seem to me nearly worthless from every point of view. Stale play like that, far from whetting the general college appetite for sane athletic work, would shut your gymnasium in a season.

Horace Butterworth complains that college athletes gain so much more public applause than is given the turners. He says:

> It is doubtful if the total membership of the North American Gymnastic Union receives as much publicity in the course of a year as does even one of the prominent athletes in the universities of the country in a single week, and yet they are training more athletes than all the colleges put together. The vital point of difference between the work of the turner and the college man is that of purpose; the college athlete trains his muscles primarily to win a prize, for his own glory and that of his *alma mater;* the turner, to increase his stock of health and strength. . . . . The work of the collegian makes him brother to all showmen—actors, circus performers, vaudeville "artists," patent medicine "spielers;" the turner's aim is to become a good man physically, and to maintain this condition by rational and systematic athletic and gymnastic exercises throughout a long life.

This criticism of college athletes is unduly severe, if not wholly a travesty. The college people who, if any, look forward to match games with no thought save of victory are hardly ever the players themselves; they are the students too lazy ever to exercise at all.

No praise is too great for the turners; but their numbers and their excellent influence might be largely increased were it possible for them to have a greater profusion of match games. As it is, they indulge in many; and the principle of competition—one performer vying with another for fame and name—plays, to my mind, a far more signal rôle among them than Mr. Butterworth supposes. It is as easy to underestimate as it is to overestimate the athletic virtue of competition. It is as easy to underestimate it in practice as it is in theory.

The power of sound physical education reaches beyond the body. Many sports prevalent in college are of extraordinary intellectual worth. Football excels in this respect. Good football proceeds much more from brain than from muscle. The same is true to a considerable extent of baseball, basketball, tennis, and, in fact, of every game whatever.

Athletic performance mightily quickens mental action. It effects this in a variety of ways, but perhaps mainly thru the intense interest it arouses and maintains. It develops the will, an all-important supplement to the set curriculum, which, as all pedagogs complain, is sadly deficient in motor and executive provision. The ability to do a great many things, to put forth one's utmost possible strength at moments, instantaneousness of decision, and grit and steadiness for resolute conation thru long periods, are all of the highest educational value; and they are powers which large classes of students acquire on track and field very much better than they do in the class-room.

Nearly all earnest sport, properly carried on, also has immense moral weight. It develops courage, independence in action, the sense of individual responsibility; and at the same time fits for joint activities, co-operation, self-denial, strenuousness in pursuing worthy ends, and calmness in defeat. It builds walls against the special vices to which young manhood is prone. It renders college discipline easier. Untrained onlookers may think football and basket-ball brutal, but the fact is that both games are a constant schooling in forbearance and humaneness—doubly effective because consisting in ceaseless resistance to strong temptation. Nor is this generalization invalidated by the unfortunate fact that a player once in a while gives way to the temptation.

Wholly conservative pedagogy therefore approves, under suitable regulations, all the usual forms of college sport, with occasional fierce match trials in each—track athletics, tennis, baseball, basket-ball, football, boxing, wrestling, fencing, and rowing—tho rowing is not to be so earnestly commended as the others, partly because few can engage in it, and partly because it is not a very safe sport for matches.

The fact that our colleges and universities are now health factories as well as seminaries of learning is thus among the most promising data in American life. Call this booming of the body a "fad," if you will; a good-health fad is certainly better than a bad-health fad, such as once prevailed when many men, and a still greater number of women, actually appeared to "enjoy" poor health.

It cannot be denied, after all, that, to render our picture true to life, we are æsthetically bound to add a bit of chiaroscuro, if not some blackwash details.

Whatever darker features appear, we shall still survey the prospect with hope, remembering how many evils besetting college athletics have been eliminated in the past. The various ills from biased and ignorant umpiring, for instance, at one time so grave, at least in football, as to awaken fear that the game must be surrendered to professionals, are rarely heard of now. Accidents in football still occur, and always will; but they diminish both in frequency and in severity as contestants improve, so that fewer and fewer critics now denounce this game as "lethal." We shall expect similar betterment in other respects and there certainly is chance for such.

If the college athlete, generally speaking, encourages good bodily form among collegians, he is helping certain golden means thereto into deplorable desuetude and oblivion.

Hygienic exercises in college may easily be made too set, formal, or concrete, and, with many students, they are certainly in danger of becoming too severe. Let us train for record by all means, but let it be a health, strength, and longevity record rather than a pole-vault, shot-putting, or hammer-slinging record. I always exercised in the gymnasium till crowded out by younger men. I will not deny that my retirement was partly due to the discouragement following pretty uniform defeat. But there was one event in which I always bore off the palm, in which today I hold the solar-system record and am pronounced a wonder by all who have seen me perform. That event is moderation.

The numerous athletes and trick gymnasts of both sexes congratulating themselves over the cubic feet of air they can blow into the bag, on the size of their biceps, on the various records they have made, must not be permitted to lead the less accomplished student to think exercise of no account because it is informal. David and Goliath, Methuseleh and Samson, Hercules and Polyphemus, never trained in gymnasiums, and not 1 per cent. of the people in any modern community can. I plead for forms of health work suitable for both sexes and all ages, at odd moments, without teachers, set uniforms, rigid hours or rules.

I commend particularly to such as do not play ball or tennis certain exercises which perhaps cannot be made very popular, but can be made exceedingly useful. It is not golf or cycling that I have in mind. Both these, I dare say, are praiseworthy, but each requires an outfit of some cost, and also, most seem to think, its own uniform. The exercises which I should like to promote are deep breathing, slow running, walking, especially with some object in view aside from mere exercise, and the accurate far-throwing either of balls or of pebbles. I wish these exercise might become fashionable like golf. They call for no outfit, no special uniform, no elegantly graded and kept grounds; and they are suitable for well people of either sex, whether older or younger.

Our most zealous students ought to have more fun, jollity, folly. Don't let idlers monopolize the vanities. Avail yourselves of all good incidental pastimes—games, concerts, joking, light converse, novels. In proportion as your work interests you there is danger of protracting it too long at a stretch. Change of work avails little. There is but so much nerve energy in a student at any time. Quit work and relax.

Everyone also needs systematic, studied, professional diversion—an avocation. Be an amateur expert at some craft other than the one in which you hope for promotion—mountain-climbing, golfing, boxing, rowing, hunting, keeping bees, rearing horses, cattle, or dogs. Microscopy is a splendid avocation. Systematic reading is another. Best of all avocations, however, are

the various forms of art life and work. Without ever tempting to excess or suggesting what is base, they round out, embellish, and enrich character, and inspire devotees for occupations which are more serious and more immediately and obviously valuable.

I fear we may have to admit that our lordly college systems of physical education influence college communities unfavorably touching these tamer, but most sane and useful, helps toward keeping well.

Fiscal mismanagement of athletic sports still afflicts colleges, but it is lessening, and can, so far as it is of an official nature, be wholly suppressed by any athletic board resolute enough to insist on due oversight, control, and audit. Every college of size should have a paid manager of its athletic finances, able, conscientious, exacting—preferably not otherwse connected with the college or otherwise interested in athletics. Gate money would still be collected, but none of it misspent. Part might go into the college treasury for paying coaches' salaries.

As soon as it can be brought about, all coaches should be employed and paid by the college authorities directly, as sub-functionaries on the gymnasium staff, that their pay and promotion may not depend on spectacular or phenomenal results secured by doubtful means, but upon sincere and faithful work, in the interest of the whole student body, and in an academic rather than a "sporting" spirit.

Harder to deal with is underhanded Philistine fiscal intervention in college athletics—town subsidies of one sort or another provided for college athletes, either secretly or with the connivance of certain members upon athletic boards. But, under a reasonable code of regulations, this also can be prevented by firmly insisting that no student ascertained to be thus assisted can retain place upon any college team. Let there be no hiring of men to engage in college sports, whether by athletic association representatives or by Philistines. Such a practice is inconsistent with the amateur spirit.

All agree that we must rid college athletics of professionalism. Every reasonable effort to this end should be furthered. Amateurism in college sports ought to be cultivated and encouraged to the utmost of our power and planning. Our dread of professionalism is not that any disgrace attaches to the function of a professional ball player, more than to that of an actor or a musician, but that we do not wish colleges to be filled with men who make study a minor interest or cherish "sporting" aims. To welcome these to college without reform in their purposes would certainly be unwise and disastrous.

Says the New York *Evening Post:*

> Thirty years ago neither press nor public had gone crazy over college sport and elevated the quarterback, the stroke-oar, and the pitcher into national heroes. Undergraduates, however interested in their games, were not unanimous in believing that the fate of the institution and of their own immortal souls depended upon the next contest. . . . . The unwholesome stimulation of zeal has inevitably led to professionalism in various phases; in some cases the players have been "special" students—that is, students merely in name,

secretly paid for services on the teams; in other cases the paid players have been "regular," but through the leniency of soft-hearted and soft-headed professors have slipped through with next to no study; and still others, though good students, have been paid indirectly, perhaps through connection with "summer nines." At worst, we have had college teams with scarcely a genuine student on them; at best, teams of students to whom athletics is practically a trade, who, to use President Faunce's phrase, "play all summer and every summer," "acquire all the skill and endurance of full-fledged professionals," and drive from the diamond the genuine amateurs, "the students who engage in sport purely for love of the game."

This picture from the *Post* seems to me considerably overdrawn, but that it limns real evils and an unfortunate situation is not open to question.

Careful observers agree that present rules are not operating smoothly. Sand gets at the bearings as often as oil. Interpreted strictly and lived up to, as of course they ought to be while in force, the rules not seldom work injustice. Too often they are not interpreted strictly or lived up to. Is there not a cause for this, aside from men's proverbial frailty—a lurking unreason in the rules themselves, which renders, and will, till the evil is remedied, continue to render, the just execution of our rules impossible? The whole history of penology proves the vanity of mere rigor in laws, even when faithfully executed, save so far as the laws impress all classes concerned with the conviction that they are just.

I must bracket in, right here, a trio of remarks without which what I say might easily be misunderstood.

1. The views which I present are only my personal views. I do not speak for the University of Nebraska, whose athletic board, would, I presume, demur to a good deal that I am here uttering.

2. When a college has thru its athletic authority solemnly subscribed a code of play rules, or entered a league possessing such a code which is understood to be in force, then that college should use the whole power of its administration to see that its representatives live up to that code; it has no right to ignore crimes or torts against the code simply because portions thereof are displeasing or absurd. Renounce the code, if you please, but while you pretend to be under it, be true to it.

3. The punctilious execution of whatever rules are agreed upon must be the sincere concern of all the colleges nominally concerned. The college attempting honesty in athletic sport single-handed fares as does the grocer who sells pure sugar when all his competitors sell sand. It soon goes out of the business. It is to be feared that every college in the United States is interested in this remark, either as a felon or as a victim of felony.

To effect reform in this vital matter, to enact rules that can be enforced, we need a rational notion of "amateur" and of "professional," instead of importing our definitions from Oxford and Cambridge. The criterion on which to lay all stress should be actual, *bona fide* studentship. I do not for my part see why a young man of character and scholarship, sincerely a collegian, as truly so as any of his classmates, with no thought whatever of game-playing as a profession or as a permanent source of revenue, should be stigmatized as a "professional," a "non-amateur," and kept off college teams, simply because, now and then, in a summer vacation, being obliged to get money in order to prosecute his studies, he has, instead of pitching hay, pitched ball

and received a few dollars for doing so. American college athleticism will at this point do well not to ape that of British universities. What we desire in our college athletes is sincerity, scholarship, manhood, college spirit, neither philistinism on the one hand, nor pharisaism on the other—purity *versus* purism or puritanism; Americanism, democracy, as against aristocracy. Let no self-supporting student be excluded from any college team because he has to work with his hands that he may the better work with his head.

In other walks of life the mere receipt of money for a given sort of function does not make a man a professional. A jolly resin-the-bow, for instance, who gets a dollar now and then for fiddling at a country dance is not a violinist *de métier*. A lay preacher officiating at a funeral and receiving a *douceur* to attest the pleasure of the heirs is not thereby ordained. Many college presidents, it is to be hoped, at times touch bank notes in return for addresses by them delivered; but they are rarely referred to as professional speakers, like Gough and George William Curtis; and if one of them should be so denominated, something other than the money would be needed to explain the choice of title. The same in regard to writing for the press, reporting, literary work in general. Not the fee makes the professional, but the dominant purpose, with some reference also, no doubt, to the man's aptness or ability for the art which he affects.

Every college in the land has students of a musical turn who, both at home and while in attendance at college, sing or play in churches on Sunday and receive money for their service. Yet we never think of excluding such collegians from college glee clubs, choral societies, or bands, even tho some of them may deserve to be named professionals. Being genuine students, they have the right to represent their colleges in all musical associations and performances. Why not treat athletes by this same rule?

To exclude from representative college sports for any reason any set of men who are *bona fide* students, standing well in their classes and honorable in life and character, will not in the long run conduce to purity in athletics; it will have the reverse effect. Possibly the studentship of men who have played regularly before entering college, or play on summer nines while in college, should be examined with extra severity, but wherever scrutiny reveals a case of genuine studentship, the full privileges of college track and field should be open.

A man may actually be a professional in some game and yet never have taken money for playing it. That is, he may possess the spirit of sport without the spirit of studentship. He ought not to be eligible, but is so under the rules now usually prevailing. An athlete may also be the poorest sort of a student, a mere hanger-on by grace, yet, if he has never happened to receive remuneration, he is eligible.

No end of fraud and immorality must attend the attempted execution of a puritanic rule in these premises. Players called amateurs will continue to

be hired and to play under pay as truly as if their salaries were published in the papers.

President Faunce justly denounces the systematic prevarication which has prevailed and still prevails in college sport. Harvard University deserves great praise for its summary dealing with a case of this kind recently. Nearly two months before the end of his senior year, Clarkson, the famous pitcher, had, according to the papers, signed a contract with the New York Americans, accepting $500 of his salary in advance. Yet he continued to play with the Harvard team until his fraud was brought to light.

I believe that naught else has done so much to debauch consciences in this fashion, inducing clandestinism, the illicit receiving of aid by players, and general philistinism within the college, as telling *bona fide* college students wishing to play the game that they cannot do this in college if they play for money outside. The unreason of the restriction is so clear that players feel encouraged to defy it. Young men will play in summer, taking wages in fact, tho no longer in name, or else taking wages indirectly, as, titularly, drug-store tapsters of summer drinks, as colporteurs of temperance tracts, or as agents of Bible societies.

Under enforced purism, also, the level of play would sink. A boy who has played well enough to have been sought after as an athlete will certainly play much better in college than one less interested. An amateur of wealth and leisure would not be likely to match him.

It is desirable, and not the reverse, to keep up some parity of excellence between college athletics and athletics in general. To let amateur play become markedly inferior would be to render it ridiculous and greatly to lessen its present power for good.

Ceasing to fume over summer play, which is no test whatever of scholastic character, we shall have better success in securing obedience to those criteria which do relate to genuineness of studentship, the great question at issue.

1. Let no man represent any college in any match until he has been in that college a year, failing in no study and gaining at least a 60 per cent. general average standing.

2. Promptly disqualify, whether during training or mid season, any candidate or contestant who for a month falls below the general average named, or is guilty of any immorality, breach of training, or impropriety in play.

3. Require of every team member his written statement upon honor, detailing his revenue and means of support; money from home, wages and for what, gifts and from whom, etc., with the understanding that aught of misrepresentation in the amount will, being discovered, permanently blacklist the man, throughout the association and the country.

CHARACTER IN ATHLETICS

WILLIAM H. P. FAUNCE, PRESIDENT OF BROWN UNIVERSITY, PROVIDENCE, R. I.

To an unsophisticated spectator it may seem surprising, or even amusing, that university executives, after discussing at various commencements the profoundest problems of the intellectual and academic life of America, should voluntarily come here to debate the question of college athletics. "Is it true," the cynical observer may ask, "that American education has so declined from the ideals of its founders, so succumbed to the athletic craze, that even the department of the higher education can find no weightier theme than the achievements of the diamond and the gridiron?" But the cynic is mistaken, as usual. We are not here to discuss the promotion of athletic interests. If that were the object, we would better send for the innumerable captains and managers who have subdued athletic kingdoms, wrought righteousness—or unrighteousness—and put to flight the armies of alien colleges. But this subject has been chosen because the college man is not built in separate compartments, one of which may be labeled "athletic," another "intellectual," and another "moral." He is one man, noble or ignoble, developing or stunted, honest or dishonest, all the way thru. The unity of the personality cannot be broken. For a college teacher to say, "Only my department concerns me; let the athletes care for their own," is to play the part of ostrich and hide from reality. The attitude of the student on the playground is felt in every class-room. What he is in the great games which elicit the sympathy and enthusiastic support of his fellows, which draw thousands of spectators and constitute the staple of conversation for months before and after, that he is and must be in the study of language, mathematics, philosophy, and history. The social and moral conditions which are both effect and cause of modern athletic contests are the concern of every teacher in every college. They are sometimes understood best by those who are not themselves in the arena of conflict. They demand wide horizon, sympathetic but resolute treatment, refusal to surrender ideals, and frankest possible utterance.

The history of college sport in America during the last thirty years may be divided into three periods: the period of genuine recreation, the period of expansion and publicity, and the period of systematic prevarication.

The period of genuine recreation the older men can easily recall. I would not be classed with the *laudatores temporis acti*. That early period when sport was pure enjoyment, without thought of amateur or professional standing, with little calculation of financial results, had, of course, its infelicities and shortcomings. Physical culture had not then been properly emphasized. The traditional student was a narrow-chested recluse whose symbol was the midnight lamp. But at least this must be said: When the students of that day had their sports, they had a far greater amount of pure undiluted enjoyment than is possible under present artificial and complex conditions. When

a friend of mine, a noted athlete, recently saw a score of students disporting themselves in a college swimming-pool, he said: "That is the ideal of recreation—spontaneous, impromptu, uncalculating! No 'eligibility,' no vexatious network of rules, no prizes save the honor of winning, no thunders of applause, no gate receipts—simply pure, wholesome, healthful fun. When will those days return again in all collegiate sport?"

Tho we cannot reverse the glass of time, it is good to remember some things we once possessed. Sport was then utterly subordinate to other interests. No man who engaged in it needed to sacrifice scholarship or character. It made comparatively small drafts on one's time, or nervous energy, or purse. To win games was not the goal of existence, nor was losing games a reason for final despair. The qualifications for "making" a team were not so lofty and difficult as to exclude the great majority of students. Any man of good muscular and nervous power might hope to share in some of the games of his college. To be paid for playing was as inconceivable as to be paid for cheering or singing. "No one then worked for money, ... but each for the joy of the working." It is true that the students as a whole then lacked some rallying-point, some means of expression for their corporate consciousness, and student feeling found vent in many a prank or even rebellion which now would seem absurd or impossible. I gladly recognize all that athletics have done to provide expression for the corporate loyalty and the exuberant vitality of the student body. But we cannot look back on the college sport of thirty or forty years ago without recognizing that in its naturalness, its unforced enjoyment, its fine spontaneousness, its freedom from sordid calculations, its superiority to evasion and trickery, it was beyond anything we have today.

Then came, by a natural development, the period when financial considerations were forced to the front. The eyes of the managers of professional teams were covetously cast on the "stars" in our college teams, and long before graduation large sums were offered to induce our students to postpone or surrender their chosen careers and join in making sport for the public. That sport-loving public began to attend in increasing numbers the intercollegiate games. Gate receipts vastly increased. Coaches of large experience and high-priced skill were introduced. Training tables were established; costly paraphernalia, expensive hotels, and palace cars became necessary; and college sport in a few years took on the dimensions, the apparent importance, the methods, and the spirit of the professional world outside. Then the alumni awoke to the need of aiding their college in this new and strenuous rivalry. They supported captains and managers in various novel and subterranean schemes. Secondary schools were visited thruout the country, and promising athletes were dazzled by offers from numerous colleges. Boys' heads were turned before they had reached their freshman year. Their pictures were in the sporting columns of the press, their services eagerly sought, and they came to expect and demand a recognition and a compensation which had never been accorded to any eminence in scholarship. Thus was ushered in

an era of traffic, which, however concealed from college faculties, was perfectly understood and abetted by college alumni. Good baseball players were bought up in the annual market by every really enterprising athletic board. They might be intellectual dullards, but they could at least take one course in the machine shops or listen to a series of stereopticon lectures on architecture, and so become qualified to represent their college. Vigorous executives soon saw the advertising power of victorious athletic teams, and large scholarships were forthcoming for those who, however deficient mentally, showed promise of athletic prowess. Students migrated from one college to another with a suddenness which only alumni in the secret could explain. The teams in many cases did not represent the college or its ideals, but represented simply the business enterprise and financial resources of the athletic association.

The history of that remarkable period will some day be written by the men who created it. Pardon a few details. On one occasion, just before a critical game, the pitcher of one team was offered twenty-five dollars by a professional manager, if he would desert the college team and pitch for the "professionals." Immediately he deserted—and why should he not? He had no shred of interest in the college, having come there simply to make money. On another occasion a famous ball-player, receiving an offer of a handsome professional salary for the season, left college in the month of May, never to return, leaving for the same reason that he entered—to put money in his purse. On another occasion, half an hour before an important game, the captain said to the manager: "Here is my laundry bill. I cannot pay it. You pay it or I do not play." The bill was paid and the game proceeded. Hundreds of such bills were paid without scruple in order at all costs to purchase victory. This period of open traffic brought into our colleges a section of the sporting fraternity, taught our students devices which they would previously have spurned, dulled the sense of honor, and seriously damaged standards of scholarship. Conditions became so intolerable that a general revolt was inevitable. To hire men to play was no intrinsic moral wrong, but it was none the less causing an obvious deterioration of manners and morals. One by one the colleges resolved to draw a sharp line of distinction between amateur and professional sport, and to insist upon the former. Especially influential was a conference called by Brown University, and often called the "Providence Conference." This conference resulted in the formation of a union by several eastern colleges, which agreed that a student before he could represent his college in any athletic contest must declare that he had never in his life received any compensation, direct or indirect, for the use of any athletic knowledge or skill he may possess. Practically all the leading colleges adopted this rule, little dreaming that they were ushering in the third period—that of systematic prevarication.

The new rules offered the finest possible field for casuistry and hairsplitting. With student conscience behind them they would have remedied the evil, but that conscience did not insist on literal enforcement. What is "indirect

compensation"? If the students secure for one of their number an opportunity to earn money by working in a store in the evening, doing this out of friendship (and friendship may be based on athletic affinity), is that "indirect compensation"? If a senior take an athletic freshman to room with him without exacting payment of room rent, is that "indirect compensation"? Can any authorities forbid such a deed of charity? If an alumnus engages an athletic sophomore to work for him during the summer at market rates, who can object? But how if the interest of the alumnus is based wholly on the expectation of future athletic distinction? No theological casuistry of the sixteenth century was ever more subtle or specious than that which college sport had produced. If the senior cannot pay the freshman in any other way, he makes with him some preposterous wager and loses it. Thus the money has changed hands, but it cannot be shown to be compensation for skill. The rules are regularly circumvented and faculties are outwitted with keen enjoyment. Sometimes the student, refusing to take the money himself, orders it sent to his father or brother. Why should we use soft words when facing such facts? We are living in a time when college athletics are honeycombed with falsehood, and when the professions of amateurism are usually hypocrisy. No college team ever meets another today with actual faith in the other's eligibility. At a recent baseball contest the captain of one team said to a friend of mine: "Do you see our aggregation out there? Hardly one of them is entitled to play under the rules." Every college player knows that the opposing team is disqualified, but no one will give evidence for the reason that inhabitants of glass houses do not throw stones. When the evidence, however, becomes public and notorious, then with a flourish of trumpets the offending player is dropped, and having refurnished its reputation for athletic virtue, the team goes on until more evidence becomes public. The fine sense of personal honor which would scorn to take advantage of an opponent by subterfuge has been replaced by the ostentatious flinging of a sop to the Cerberus of public opinion.

The damaging results of all this in college life need not be pointed out. Young men trained in such devices cannot be expected in after-years to show great sensitiveness of conscience in the commercial or political arena. Men thoroly instructed in the art of evading rules they do not like will not easily in later life be found in the ranks of municipal reform or civic virtue. If we allow them to remain in such conditions, can we ask that they become the moral leaders of their generation?

But the effect on our secondary schools is still more to be deprecated. If the letters that pass between college athletic managers and secondary-school boys could be published, they would startle the country. Here is a specimen, one of thousands, written to the manager of a baseball team by a boy who was selecting his college:

DEAR SIR:

You said, "Come immediately." Now, I cannot come unless we can agree on the terms I telegraphed to you Wednesday; that is, all expenses during year — board,

room, tuition, books, etc.—and one hundred dollars besides. It would be only extra expense for me to go to see you unless you can comply with those terms, because I could not stay under any other conditions.

So if those terms are satisfactory to you, just make out a statement signed by yourself and some member of the faculty, or some reliable business man in town, stating all the conditions and terms. I am also willing to sign an agreement. I have seen forms of college agreement for baseball this year, and it is so stated that nothing could be brought up against the school even if the agreement should be exposed. Of course, I must have something to show, that I may know just where I am. If you wish to do this, I will come at once as soon as I receive the agreement.

Very truly yours,

Men trained in such methods thru all the years of school and college life may become future leaders, but they will be leaders in the art of evading taxes, manipulating courts, and outwitting the law of the land. Yet this kind of correspondence is now carried on thruout the country. An athletic boy frequently writes to half a dozen colleges and selects the highest academic bidder. Every college president receives letters, stating what inducements have been offered elsewhere, and demanding in thinly veiled phraseology whether he is prepared to outbid his rivals. One of the professors in one of our leading universities has today in his possession a letter from a professor in another institution, offering to a promising athlete a guarantee of all expenses thruout his college course.

By a natural extension the same process is now used in drawing boys to secondary schools. The great private schools and academies send their representatives to elementary and grammar schools to secure by pledges and agreements promising athletic material, which, after it has been duly trained, may be disposed of at advanced prices, to buyers in the college world.

After that college world is entered, the system is further extended to cover the exigencies of so-called "summer ball." Many students who must earn money in the summer find that by far the easiest way to do it is by playing on "summer nines," usually for the entertainment of guests at hotels. For several years this practice has been growing, and with it has grown remarkable ingenuity in concealing financial results. Many a student receives from thirty to fifty dollars per week for serving as waiter or bell boy in the hotel, while it so happens that he finds abundant leisure for playing ball before the hotel piazza. Sometimes, by the help of lawyers, a contract is drawn up with the proprietor, certifying that all compensation received was for work done in the hotel and none whatever for the innocent games of ball. Thus athletic authorities are either misled or rendered powerless. A student on one of these "summer nines" plays beside students from other colleges, and knows that they, like himself, are paid for furnishing sport. Yet when he meets those students on an opposing college team the next spring, he makes no protest. He protects his opponents and they protect him. As one of these men recently faced a team from a famous university, he said: "Five of those nine men played on the same team with me all last summer, and I did not play for nothing." Last year a Boston

newspaper published the names of noted players from most of the eastern colleges who were engaged in this kind of summer work, and gave the places where the work was done. No denials were made, for none were possible. "Systematic prevarication" is surely a mild term to apply to such conditions.

Now, what can be done? If we cannot return to the situation of thirty years ago, if we will not return to the open traffic of fifteen years ago, what can we do to escape from the prevalent subterfuge of today? Surely we shall not abandon athletic games and sports. They are vital to our future. They seem destined to play as large a part in the life of America as in ancient Greece or modern England. It is an ungracious task to point out weaknesses in what I consider essential in education. Let no abuses tempt us to give up or condemn college athletics. These sports develop discipline, co-operation, self-sacrifice, loyalty, devotion in extraordinary measure. We cannot make men without them. We must not stand for a policy of obstruction and objurgation. But certain things are immediately necessary:

1. A careful and candid study of the facts by all college administrators and teachers. These facts will prove always interesting and often amazing. This work cannot be turned over to former famous athletes as their province. It concerns every teacher in every department. Let us determine that we will not live in a "fools' paradise." Let us cease to cry: "Things may be wrong with you, but they are right with us." Things have been wrong everywhere. To acknowledge this frankly and publicly is the first step. Confession is good for the corporate as well as for the individual soul. Faculties cannot ignore facts without losing the respect of their students. Whether official ignorance is voluntary or involuntary, it is henceforth culpable.

2. We need the united co-operative effort of the colleges. No one college can combat this evil alone. It may valiantly start out, but if others refuse to join, the isolated institution has an impossible task on hand. A common evil demands common action. The great good which has been accomplished thru achieving a practically common standard of admission to our class-rooms would be paralleled by the establishment of a common standard of admission to the athletic field. Especially do we need the help of our larger, older, and more influential institutions. Under their leadership candor and honesty can be re-established. But if those institutions are solicitous only for their own welfare, the college world will long continue to suffer.

3. This co-operation should first be in the direction of enforcing honestly the rules we already have, and then in the way of so changing those rules as to remove certain features of palpable injustice. Blind worship of rules is unworthy of us and will produce inevitable reaction. Rules are means, not ends, and some of them may be better adapted to English than to American life. If a boy of fifteen runs in a race and wins a prize, it is absurd and preposterous that he should lose his eligibility for life, and, because of one thoughtless act of boyhood, in itself morally innocent, should be forever excluded from representing any American college in any game. If a young student in an

academy gives boxing lessons for money, it is doubtless necessary to declare him a professional player. But to say that that one athletic transgression of boyhood hath never forgiveness is to take a position intolerably pharisaic. Many colleges are today demanding provision by which a student may recover eligibility that has been lost. Many cases of glaring injustice demand attention. How far it will be safe for the colleges together to modify their attitude on all these questions, we cannot say. But thru co-operative effort gradual reform at least is possible, and it is imperative.

What we really want is to create a spirit—when that is created, rules may be flung away—the spirit which distinguishes between work and play, between business and recreation, and resolutely refuses to turn friendly games into a system of trade. American students have gone as far as they can go in their endeavors. It now remains for college faculties to learn the facts, acknowledge them, change them, and turn athletic sports, so often now a training in collusion and evasion, into a training for citizenship, honorable public life, and the moral leadership of men.

THE EFFECTS OF ATHLETICS ON THE MORALE OF THE COLLEGE

FRANK STRONG, CHANCELLOR OF THE UNIVERSITY OF KANSAS, LAWRENCE, KANS.

The effects of athletics on the morale of the college community are by no means all bad, and unfortunately are not all good. One prime reason for the latter condition is that athletics as at present managed does not fit in well with the idealism of the college. One great value of the four years spent in college is that the student is separated from the sordid things of life more fully, perhaps, than at any other period; the professional side of life has not as yet come strongly into view, and his ideals are being formed and developed. He is not yet looking upon everything from the standpoint of material advantage, nor with the idea that he has entered upon a tremendous competition in which it is incumbent upon him that he win at every cost. If the college itself has the right effect upon his character, his whole study and training rather lead him to an unselfish consideration of life; to the feeling that the man who wins, at whatever cost, is not always the one to be admired and followed; and to believe that the results of unusual physical exertion are not really worthy of the same consideration as the results of mental and moral effort.

Especially is it true that the college training does, or ought to, divert the mind from the professional side of life so far as its peculiar essence and aims go. I believe college administrators look askance at anything that seems to introduce this side of professionalism into college life. And it seems to me that the main indictment to be brought against athletics as at present administered is just this, that it lowers the ideals of college life and introduces

the unwelcome element of professionalism into the college atmosphere and affects every department of the college. This element is introductory of bad manners, bad temper, the lack of self-control, of an uneasy, intemperate life, and a lack of continuity in thought and work. It undermines the wholesome idea of sport in its right sense, and leads directly to the idea that only those who possess superior physical strength have any right to take part in college sports. It leads to contempt for the physically weak, and this contempt keeps from physical exertion those who need it most. It insidiously introduces the idea into the minds of good men that departure from the highest standards of personal conduct and thought are admissable because of the tremendous pressure toward success at any cost that professionalism brings with it.

It seems to me clear that the vital point is to eradicate professionalism from college athletics at all hazards. It would be better for us all to go back to the formless stage of college sports than to keep on in the present tendency. We can never aspire to the condition where all our students take part in rational athletic exercises, so long as the whole system works toward cutting out all but the few who are especially strong or skillful, or who are professionally trained.

It is not my province to discuss how professionalism may be eliminated, but experience indicates to us at the University of Kansas that much may be done, first, by a rigid application of the requirements for entrance to every student who offers himself as a candidate for admission to the university; secondly, by the rigid application of the rules of the university as to the number of studies a student must carry and the grade of work done; thirdly, by the application of a rule requiring one year's residence before a student is eligible to take part in intercollegiate athletic contests; and fourthly, by the introduction, just as soon as possible, of the unpaid graduate coach, and the enforcement of the rule that no man may be associated with the students of the college in any way who is himself profane in his speech or is in the least objectionable in his private daily life and conduct.

DEPARTMENT OF NORMAL SCHOOLS

SECRETARY'S MINUTES

FIRST SESSION.—Thursday, June 30, 1904

The sessions of the Department of Normal Schools were opened at 2:30 P. M. in the reading-room of the Transportation Building; L. H. Jones, president of Michigan State Normal College, Ypsilanti, Mich., and president of the department, in the chair.

The first topic, "In how Far May Child Psychology Take the Place of Adult Psychology or Rational Psychology in the Training of Teachers?" was presented by G. Stanley Hall, president of Clark University, Worcester, Mass.

The discussion which followed was led by Alexander Caswell Ellis, of the University of Texas, and by E. H. Russell, principal of the State Normal School, Worcester, Mass.

The second topic, "What Is the Net Gain to Education of the Recent Investigations into Physiological Psychology?" was presented by C. C. Van Liew, president of the State Normal School at Chico, Cal.

A general discussion followed.

SECOND SESSION.—Friday, July 1

The department was called to order at 2:30 P. M., with President L. H. Jones in the chair.

The first paper, "Out-of-Door Work on Geography," was presented by Mark S. W. Jefferson, professor of geography, Michigan State Normal College, Ypsilanti, Mich.

A discussion followed by D. C. Ridgley, professor of geography, State Normal University, Normal, Ill., and Miss Montana Hastings, supervisor of training department, State Normal School, Kirksville, Mo.

The following officers were elected for the ensuing year:

For *President*—C. C. Van Liew, Chico, Cal.
For *Vice-President*—Jesse D. Burks, Paterson, N. J.
For *Secretary*—Miss Anna Buckbee, California, Pa.

The department then adjourned.

Montana Hastings, *Secretary.*

PAPERS AND DISCUSSIONS

IN HOW FAR MAY CHILD PSYCHOLOGY TAKE THE PLACE OF ADULT PSYCHOLOGY OR RATIONAL PSYCHOLOGY IN THE TRAINING OF TEACHERS?

I

G. STANLEY HALL, PRESIDENT OF CLARK UNIVERSITY, WORCESTER, MASS.

Those who must teach philosophy to teachers are, I think, somewhat to be pitied. Froebel and Herbart are good, but abstract and obsolete. The purer idealism, which some prefer, is inspiring but irrelevant. Most normal-school manuals, I know, are formal and verbal and move too much in the sphere of definitions. Experimental psychology, which has developed certain precious results, especially for school hygiene, is too technical, and much of it has little reference to teaching; while the child-study books of which we have a number, excellent as they are, do not seem to me adequately to represent the vast resources of genetic psychology for teachers, and two or three of them are hopelessly doctrinaire. Froebel and Herbart give a few sound, deep, and new insights into child-nature, but the applications of these precious half-truths were so detailed and premature that they now hinder further genetic work, and their modern disciples look askance at what their masters would have rejoiced to see. The present unprogressive status of these systems, then, is a warning against premature applications. Hence I hesitated when this topic was proposed, because, while so much has been achieved, far more is ahead, and because applications suggest the most final conclusions.

Again, any reader of the famous and amazingly frank *Confessions of a Physician* by a European doctor, who describes the many mistakes of experts in medical science, the list of new cures and treatments that turn out deadly for countless patients, the fatal experiments, the errors of diagnosis, the ignorance of what to do in the critical moment, will recall the old satire of the doctor, called in when disease and a human life were in desperate conflict, laying about him with his club in the hope of killing the disease, but always very liable to hit and kill the patient instead. If medical science, that has of late celebrated so many triumphs, is thus uncertain and blundering, what about pedagogy, which interferes with nature in the attempt to cure ignorance and other diseases of the soul, which is so vastly more complex and unknown than the body? Is our satisfaction with methods of education in direct proportion to our ignorance of child-nature, and does the school often maim as well as help the body and soul of our pupils? Child study at least greatly deepens the teacher's sense of responsibility and increases the fear of interfering with nature; and perhaps its first result is to make us less and not more

confident in our methods. I have, at any rate, for one, reached the following conclusions upon this subject:

1. The psychology of the child and that of the adult are radically different. The younger the child, the less help can a teacher get from many or all of the current philosophies. Most of them not only are utterly without practical value, but some do direct harm. If it develops the teacher, it develops her away from the child; raises irrelevant issues; implants presuppositions that blind to or pervert obvious facts; gives a sense of attainment that weakens the power of observation. To feel that one has at the outset a conception of mind rather than it is yet to be acquired; to start with a logical system and methods, when a genetic scheme crosses it at right angles and when there is almost nothing logical about the child, is to know fruit and seed when we should study blossom and bud. Thus, with an important exception to be noted later, adult psychology should be essentially eliminated from the training of teachers.

2. Child psychology lays far greater stress on the body, while adult schemes are too exclusively occupied with mentality. For all fruitful purposes, mind is far more closely dependent upon the body in children than in adults. Child psychology begins with a scrutiny of each sense; would determine the degree of defect; tests for adenoids; seeks the incipient forms of disease, especially those that are school-bred and which are increasingly understood to be very different from the diseases of adults; studies food, nutrition, and modes of exercise; looks out for normal growth in its season; regards health as the basis of all, and school hygiene as the beginning of child psychology. Here, indeed, modern paidology began, and has done its best work perhaps in bringing the body to the front rather than the metaphysical soul. Here we already have a precious body of established knowledge and a few texts of the highest value, which every teacher should know.

3. Next comes the study of normal activities, plays and games, the instinctive feelings, fear, euphoria and pain, sympathy, friendship, dislikes and anger, spontaneous interests, the crude religious stirrings, and the natural history of the young homunculi out of school. This is the vigorous, crude stock into which we must graft scions from the tree of knowledge, and we have far more to learn about children than we can possibly teach them. The younger the child and the greater need of adaptation, the more important this knowledge about him. This shows the teacher the psychological opportunity and moment to drop each hint when it will take root and grow, to tap each new spring of interest, to turn each rill that will later become a river, to answer the unasked but budding questions that would otherwise not quite rise to consciousness. Without this knowledge the child is a manikin, a dummy with insides made of the sawdust of definition, constructed to exhibit the wares of the latest fashions in curricula. As education extends in scope, and school makes more vital contacts with home, church, industry, and society, these interests must more and more be considered in educational

endeavor. Only a minority of the child's powers, zests, and activities even now go to school; but we must aim at least to enlist a working majority of his soul, for only a very small part of it wrestles with the "three R's," or even emerges into the horizon of adults who, in this country, have less natural feeling for and interest in childhood and youth than in any other land or race in history.

4. As to the educational activities involved in school work, we know something of the psychology and of the processes involved in the act of reading and in work with elementary number. This knowledge promises to be very serviceable and economical. If the teacher does not understand the psychic mechanism here at work, her labor is blind. So, too, what children spontaneously read at different ages, the instinct of extending the vocabulary, the psychology of learning a foreign language, the physiology and hygiene of writing, the methods of drawing, the age of its various stresses, the processes involved in geography, the modes of approaching history, the value of school excellence and marks as a test of general ability, the detection and treatment of subnormal minds—in all these fields more or less results are achieved which every teacher should know; and yet it is here perhaps that very much remains to be done.

5. Of psychic processes generally, the teacher should know the laws of fatigue, which has its curves of both lapse and recovery, and its symptoms of danger, which are peculiar to childhood; and this should be all-determining for the dosage of work, for the most mind-destroying agency we know is effort in a fatigued state. Then come the general laws of attention and distraction, their psychology, prevalent direction under the dominion of interests of which we have some precious inventories, revery—a most suggestive and interesting new theme, memory, habit, conscience, association, and, last, the slowly dawning reason. Many of these topics must still be studied with the aid of adult psychology.

6. Moral education presupposes knowledge of children's faults, especially those that tend to vice and crime. Juvenile criminology has a large and rapidly growing but sad body of literature, some essentials of which should be known in order to detect evil in its bud. Many offenses are only against school order or the teacher's convenience, which are of a very different kind. It is necessary in the animal stage of life to develop many traits that would be wrong in the adult. Obstinacy is often the first outcrop of an energetic will, and before puberty selfishness is perhaps normal. Many lower instincts must find vent in childhood, or else there is danger later that they will not be reduced in their season.

7. Again, child study, because it brings many of the problems of philosophy and ethics out of the abstract into the concrete field, and abounds in details, illustrations, and personalities, is of very great advantage for women teachers, for the mind of their sex is more concrete and less prone to abstractions than that of man. Indeed, child study has been reproached with being

the feminization of metaphysics. So far as this is true, I regard it as its pride and glory. It is in all lands largely woman's work. She is the best observer of the souls of childhood and youth, but excels man nowhere more than in her power to describe her own inner states, past and present. Hence most of the best data are her contributions. The future of questionnaire work largely depends upon her. Men often suggest questions to her, and then take her data, and perhaps tabulations, and knead these up with some of his technical knowledge and return it to her to use in school. The superiority of a woman's mind consists in that it is more genetic than logical. It has been well said that Darwin and evolution came to her with less surprise than to man, and far more as a matter of course, and as something to be welcomed.

Finally, adult philosophy and child study are both far vaster than the needs of the teacher, and only a part of the latter and a far smaller modicum of the former are now needed. In industrial education it has always been found a great gain to focus upon just those topics in chemistry and physics which can be applied in the special industry, and to neglect the rest and to ignore general principles. The same is true here. Concluding, as I do, that genetic psychology in the hands of an expert could already almost supplant that of adult life, and assured that in the near future it will do so completely, I close by urging, with all the emphasis I can command, upon those who teach teachers, a mastery of all the larger aspects of their subject. Child study is now a career—a professorship. No one can fully master it in a lifetime. It correlates with the whole field of the development of the soul from the dawn of animal instinct up thru many successive stages. Mental diseases are coming to take on a genetic aspect; religion finds new light from this point of view, and indeed the largest aspect today of any topic that deals with man, and especially the greatest thing in man—mind, must have chief regard to this point of view.

II

E. H. RUSSELL, PRINCIPAL OF STATE NORMAL SCHOOL, WORCESTER, MASS.

If we can imagine one of the pedagogic pioneers of the earlier half of the last century—say, David Page, or James G. Carter, or Horace Mann, or William Russell—revisiting the scene of his former labors, and if he should ask us, as he would with eagerness, what advance our schools have made since he went to his rest, one might think perhaps of athletics, or electives, or collegiate coeducation; but, in schools below the college, would any candid person with command of the field fail to mention the serious attention now given by teachers and parents to the nature of children? The new era in the study of organic life ushered in by Darwin has brought about, not only enlargement, but transformation of all branches of natural science which are grouped under the name of biology. Of every form of life, especially in its beginnings and early development, intelligent people have come to

entertain wholly new conceptions. The old bottles, the static bottles of half a century ago, will no longer contain the dynamic wine of evolution. The older physiology offered comparatively little resistance to the change, because the body, as any one could see, was material, and was therefore subject to physical and chemical laws. But when it came to mind, there was a struggle. The case of the brute was settled by allowing him instinct, a sort of envelope or parcel containing "sealed orders" sufficient for his guidance, while reason was reserved as the prerogative of man. The notion that man is largely dominated by what in animals is called instinct, and that animals in their turn often act from motives which we should term reason if displayed by man—this conception, now forced upon us by clearest evidence, is a typical example of the bottle-bursting wine which the ferment of evolution has produced. Professor Wesley Mills calls attention to the significant fact that "it was only recently that animals were painted simply because they were animals and not the mere servants or playthings of man." "It is impossible," he says, "to conceive of a Landseer in the age of Dante." The individuality of animals had not then been detached and recognized.

Mr. Horace Scudder, in a recent study on *Childhood in Literature and Art*, makes the same remark with reference to the child, namely, that up to about the time of Wordsworth children were scarcely recognized in literature or art as anything more than diminutive and characterless adjuncts of the family. "The child," he says, "has but recently been added to the *dramatis personae* of modern literature." La Farge, the painter, says that the children of early art "are rather types than portraits." Now, I believe this is as true of education as of literature and art. Rousseau was the first, so far as I am aware, to detach and recognize effectively the individuality of the child as a pupil; and the seed planted by him, watered and tended by Richter and Pestalozzi and Froebel, and quickened by the genial atmosphere of modern thought, is but just beginning to whiten to the harvest.

Dr. Francis Warner, of London, an indefatigable student of childhood, especially in its morbid or defective conditions, would introduce the study of children thru the medium of a little botany, in order to get rid, as far as possible, of the tendency to range the phenomena of child life under the categories of adult psychology. Professor Preyer, with the same thing in view, declares that he has found "the observation of untrained animals, especially young ones, and the comparison of the observations made upon them with those made upon little children, very helpful toward an understanding of children." For the same purpose, I have felt compelled to resort, in my own classes, to a brief study of entomology, dwelling upon the almost dramatic metamorphoses which many insects undergo, as furnishing an impressive analogy to the vast differences that mark off childhood from maturity—a thing we are all snail-slow to recognize and stubbornly reluctant to confess. It is like the transition from the Ptolemaic to the Copernican conception of the universe. The drawback I find in systematic psychology is that it fixes the attention of the

student upon the *qualitative resemblances* that make us human, rather than upon the *quantitative differences* that make us individuals. It enumerates the ingredients, so to speak, that may be found by description or analysis in the *genus Homo*, but gives little hint of the *proportions* in which these ingredients enter into combination. You may say that child study does not do this. But child study does bring us face to face with the concrete fact of individuality, revealing the infinite variety and variability of human nature—most varied and most variable in childhood; and thus prepares us, so far as we can be prepared, to encounter and deal with the unexpected.

Out of the two thousand and more normal-school students whom I have known somewhat intimately, I have no hesitation in saying that not more than 5 per cent. were capable of grasping the fundamental conceptions of rational or speculative psychology. The great majority of young people are not sufficiently emancipated from the concrete and the sensible to hold steadily in view wide generalizations with regard to mental phenomena. Neither are they capable of profound and accurate introspection.

But even admitting for the moment that the psychology of the text-book and the class-room has been acquired—as I should willingly concede in the case of 4 or 5 per cent. of our students—it still seems to me that the acquirement, however disciplinary and delightful in itself, soars and hovers at too great a height above the school-room to descend and serve the teacher in the nick of time.

As a small contribution to the present discussion, it occurred to me some weeks ago to question a certain section of my graduates who had been out of school long enough to give some value to their experience, as to the comparative usefulness, in dealing with children, of these two elements in their own normal training, namely, systematic psychology and child study, both of which they had pursued under equally favorable conditions. I selected those of the decade of 1890 to 1900. Of 272 reports received, 70 per cent. were distinctly favorable to child study; 16 per cent. gave preference to systematic psychology; 10 per cent. found the two so blended that they could not compare them with one another; while 2 per cent. of the returns were so equivocal or uncertain as to be of no value. The only thing in this test that seems conclusive is that a large majority of my graduates, after several years' experience as school-teachers, believe that they derived substantial benefit from the study of individual children, even tho it was pursued in a somewhat desultory fashion. Many testified, as one would expect, that each study helped the other.

My contention is that the safer course with our class of students is to keep them on the inductive side; not to hurry them toward classification and the larger generalizations of science.

Some years ago, on a visit to the Natural Bridge in Virginia, I fell in with a gentleman who, as we rambled together thru the gorge of Cedar Creek, manifested an unusal interest in the flora of the locality. When I remarked

this, he explained it by saying that when he was a schoolboy in Concord, Mass., it was the practice (introduced, I believe, by Mr. Bronson Alcott) for all teachers to take their pupils out for a walk in the fields and woods on the first pleasant half-day of each week; and as plants, of course, furnished the readiest material for observation in these rambles, he had found such interest in them that in his college course at Harvard he had eagerly elected botany in order to enjoy the great advantage of further study under Professor Asa Gray. "But," he added, "my love of plants came far more from those walks in Concord than from Professor Gray's lectures." We normal-school teachers are wont to talk glibly of "proceeding from the concrete to the abstract," as if that were a duty laid upon every human mind, and to neglect it were a sin; but here was a man, intelligent, cultivated, mature, who had found his delight in remainng in the concrete, to whom, perchance, as to Wordsworth, not the science of botany, but the meanest flower that blows, could give "thoughts that do often lie too deep for tears."

This illustrates my position with respect to the relation between systematic psychology and child study for teachers. I believe that normal-school students and young teachers generally had better remain, for the most part, in the concrete, as parents do, with only so much of generalization and system as is needed to give support and significance to the phenomena of child life which they observe. I would place observation first and observation second and theory last, and only then for those who are capable of doing something with it besides copying it into notebooks and passing written examinations upon it. I was refreshed the other day to read, in the report of a recent address by Professor Minot, the eminent biologist, these weighty words: "To know, observe. Observe more and more, and in the end you will know. A generalization is a mountain of observations." How it renews our youth to be thus reminded that the triumphs of our art are still before us—in the glorious hyperbole of Thoreau, "we haven't got half-way to dawn yet!"

The child-study movement had scarcely begun when we were triumphantly challenged to show "results." This was twenty years ago, and it is yet too early by decades to show results that would satisfy a faithless and perverse generation of such as hug the notion that the inductions of psychology are all made, and only need to be deaconed off by the professor and copied out synoptically by the student, to be applied deductively in practice. When I took up normal-school work in Massachusetts, thirty years ago, the great ambition seemed to be to get teaching called a science and a profession. I believe there has been great progress since that time in getting teaching to deserve recognition as a progressive art and a worthy vocation. And it is my conviction that this progress has come about very largely thru the child-study movement—crude, confused, and inconclusive as much of it has been and still is. I believe there is a seminal principle in the study, however obscure or inert it may lie, however choked by false growths around it, however chilled by apathy or hostile criticism. It is part and parcel of the great movement

of evolution, and is destined, in a more solid and articulate form, no doubt, to share in the triumphs of that doctrine in the emancipation which it brings to the mind of man.

DISCUSSION

A. Caswell Ellis, professor of the science and art of education, University of Texas.— In this discussion of the substitution of the study of child psychology for the study of adult psychology in the training of teachers, one important consideration seems to me to have been omitted, i. e., the value of adult psychology as an introduction to child psychology. The operations of the adult mind are certainly nearer to the student than are those of the child-mind; indeed, they are ever present for introspection. If we go from the known to the unknown, as we inevitably do no matter what else we may attempt, we will first study the flow of ideas, the emotions, the mental changes and bodily accompaniments in our own experience; from this we get a basis of observed fact, and a habit of observation and of consideration of mental phenomena with which we can study and begin to understand the minds more remote. Probably the gap between the adult and the child-mind is first bridged by memories of our own childhood. From this we get a basis for interpretation of the observations made on other children. The psychology of childhood furnishes likewise the bridge to animal psychology. Once having got a foothold in each of these fields, it is possible both to go on to wider knowledge in that particular field and to work back from observed facts in one to new points of view and explanations in the other fields. Thus the observation of childhood throws great light on adult psychology and on animal psychology, and likewise the study of animal activities gives new light in the study and interpretation of child-life. All are needed by the teacher who would try to understand the laws governing the activity and growth of the minds he is to develop. The child-mind cannot be understood without first obtaining a fair knowledge of the mental processes going on in our own minds to use as apperceptive organ for understanding any other mental phenomena. After this thru reminiscence we work over to the child psychology, and thru this in turn to animal psychology. As evolutionists we must recognize the need of knowing, not only what the child-mind is, but whence it arises and whither it must tend. As a matter of fact, not only should normal adult psychology, but abnormal as well, be known by the teachers; else he cannot easily recognize dangerous early tendencies. I would say, then, that, so far from limiting the field of psychology for teachers to child psychology, we must extend it, not merely to adult psychology, but to animal and abnormal psychology. This, you will say, is an impossible task. Only so because of the ignorance of psychology on the part of our teachers who stick to the stupid and inadequate text-books. Not all psychology in each of these fields can be learned by the teacher; fortunately not all is needed. Comparatively little of value to teachers is yet known in each of these fields, making it all the more imperative that nothing of value in any field be omitted.

Seven years' experience in teaching the psychology of education leads me to believe that a general view of the whole field can be got in a one-year course of three periods per week. After this there is an unlimited field for investigation of special problems. What has been said is in no wise intended to minimize the value of child psychology. Indeed, the chief value of the study of the other fields lies in the help given thereby toward understanding child psychology itself.

There are three general classes of facts, sorely needed by teachers, which child psychology alone can give. (1) Concerning the periods of nascence of various tendencies and capacities. We waste much time now by giving some things too soon, and lose much of precious possibilities by starting others too late. The nascent periods for musical training, for certain aspects of religious development, for social endeavor, are fairly well known; but the nascent periods of a whole host of possibilities which the teacher must develop are as

yet only roughly determined. We are hardly conversant enough with the symptoms of nascency to recognize it when before our eyes. (2) Concerning periods of peculiar weakness and danger. We at least know at what age the tissues of a child are most susceptible to the germ of scarlet fever; we know something of the peculiar moral and physical dangers of pubesence; something of the danger of skepticism and despondency in the later "teens" and early twenties; but ignorance of other equally important, but less obvious, periods of strain or danger lies at the root of daily tragedies in the school and home. (3) Lastly, it is only thru study of children that the developmental relations existing between different phases of growth can be discovered. This is a point we are just beginning to understand. We have talked of development for years, but most of us still think of it in terms of the old logic of addition and substraction. From this point of view a childish activity can serve to promote a later activity only when the childish activity furnishes certain knowledge or trains certain specific mental or physical powers which will be used in the later activity. Now, biology shows that the developmental relation between different stages of growth is far more subtle than this. For instance, the activity and the development of the grub as it plows thru the earth appear to bear no relation to the organs and activities of the adult winged beetle; yet the perfection of the former furnishes the essential stimulus to the development of the latter. The activities of the tadpole's tail seem to have no relation to the development of the frog's hind legs, except to give the would-be frog a means of getting about and securing food; yet the future nourishment of the legs depends upon certain developments which the tail must bring about. Now, in our work of developing children we are mere bulls in china shops until we understand just what is the developmental relation which each tendency bears to earlier and later possibilities. Some of these are known, others we must learn; and child psychology alone can give this needed knowledge.

WHAT IS THE NET GAIN TO EDUCATION OF RECENT INVESTIGATIONS IN PHYSIOLOGICAL PSYCHOLOGY?

CHARLES C. VAN LIEW, PRESIDENT OF STATE NORMAL SCHOOL, CHICO, CAL.

The position which has been given this paper on the program of this section seems to indicate that the phrase "physiological psychology" is to be taken in a restricted sense. I shall, accordingly, endeavor to discuss the net gain to education of that psychology which we seek to get at thru, and in connection with, the study of physiological processes, exclusive of those problems which have come to belong peculiarly to child study and genetic psychology. It is very true that no sharp line can be drawn between the psychological field of the present discussion and other psychological fields. The best that can be done, perhaps, is merely to refer to that large and more or less organized body of material which has been arrived at chiefly thru the physiological avenue of approach, and which does not directly attack the genetic problem, except in so far as the latter is necessarily involved. For the purposes of the present discussion it is quite immaterial that much of this stock is not, strictly speaking, so much psychological as physiological. Our problem here is simply that of its educational serviceability. In his volume on *Psychology and Life*, Münsterberg rightly says: "The hope that physio-

logical psychology will give us a fuller acquaintance with the psychological facts as such is . . . . an illusion." In the strict sense this is true, but it is equally true that systematized knowledge of the physiological conditions or concomitants of mental processes may, educationally, be of even greater value than a purely descriptive, introspective psychology. Directly the teacher and the educational mechanism deal only with a physiological child; for this reason a sound mechanics of stimulation and reaction may in the end be vastly more serviceable than a mere description and classification of subjective states.

On the other hand, any defense whatever of physiological psychology on the grounds of the distinctly psychological services it can render education, must start from the same general propositions which would underlie a similar defense of psychology in general. Personally I find it increasingly difficult to indorse the expectations which evidently underlie the position which general psychology has come to occupy in our normal schools and in the educational departments of our universities. The whole trend of the psychologic movement in training teachers seems to rest upon the assumption that somehow psychology is consciously to affect the methods of the teacher; and this in the face of the facts that teaching is an art; that our best teachers are still those who are teachers by instinct, as it were, i. e., possessed of native teaching personality and the naturally fitting teaching reactions; and, finally, that some of our poorest teachers may still be found in the faculities of institutions for the training of teachers where psychology is supposed to be a master-key.

It is, perhaps, no more than fair to confess that the one who has been selected to lead in the present discussion is unfortunately, or perhaps fortunately, one who believes that the function of institutions which undertake to train teachers is, primarily, the selection of fit teaching personalities; secondarily, their professional culture. When this fundamental requirement in the training of teachers has been adequately recognized, we shall get more that is genuine out of our psychology and pedagogy, because then the spectacle of students trying to overcome *native unfitness* for teaching, by close application to pedagogy and psychology, shall have been done away with. The fault which I have implied is not with psychology *per se*, but with certain misconceptions of its value as a theoretical science related to a practical and more or less spontaneous art.

To prevent the confusion of ideas which arises when we tend to identify pure psychological training with the teaching art, it is best here to distinguish sharply between the spontaneous acts of the teacher in the exercise of her art as such, be it in instruction, guidance, or training, and all those preliminary measures of planning, arranging, and organizing with a view to creating the best possible conditions for the exercise of the teacher's art. It is the latter—i. e., all that we comprehend under the terms "management" and "organization"—and not the former—i. e., all we comprehend under the teaching art—which physiological psychology is, I believe, at present most likely to affect.

From the foregoing point of view, what psychology in general may contribute to the efficiency of a teacher is a stock of information which will, for the most part, react subconsciously upon the teacher's art. It is quite conceivable that a good native teaching personality can, as a matter of information and training, be filled up with pedagogic and psychologic data; and that, once thoroly assimilated so that they shall have contributed to the habitual materials of mental grasp, they should react subconsciously on practice. To a very limited extent only may we look for *conscious* adaptations of the teaching art thru psychological information. This knowledge of the mechanism of stimulation—e. g., in the field of sight—may undoubtedly directly and consciously affect certain teaching acts, devices, and methods in teaching reading. Yet there are grounds for pause when we find a teacher attempting to be an artist by psychological rules. Why do we despise the rule-of-thumb practitioner in any line of life? Because we know that his very consciousness of rules of action cuts off what is a distinctively human and practical trait—plasticity, manifold adaptiveness. We run counter to experience at every hand when we assume that clear consciousness of rules and laws is the prime element in all effective practice. There is somewhat in everyday life, for example, over and above our consciousness of its rules and laws; and that somewhat is the *art* of living, the active power of social adaptation, which belongs in a measure to every mother's son or daughter of us, and whose secret is not yet unlocked by any system of life rules and laws. We live better than we know, or can analyze. In the same way no mastery of the laws of grammar or rhetoric, or of any kind of literary form, ever alone produced an effective writer. Strong purpose, elevated emotion, and some æsthetic sense of fitness dominate, indeed often defy, the writer's subconscious grammar and rhetoric, and make for the literary master. So, too, technique alone does not make a musician, nor geometry and the laws of construction an architect, nor psychology a teacher. In every case the art transcends analysis of its processes, and the true artist must be left free for a personal adjustment in each individual case. There are moments in the work of every artist, including the teacher, when conditions arise which he has to "figure out," analyze, and reduce to principles; but the moment his rules and his system master him, he forfeits his title to artist.

All this is pre-eminently true of the teacher. Here, too, we may not attempt to reduce creative and constructive power merely to a system of laws. Perhaps the best, then, that we can attain is a body of psychologic knowledge that shall in the main subconsciously influence the teacher's judgment, attitude toward mental phenomena, and sympathetic adaptations, without, thru sheer consciousness of psychologic laws, checking personal freedom; just as the writer creates in harmony with laws of grammar or rhetoric which he seldom consciously calls up. The vital problem which the teacher faces is not that of childhood, nor of the child in general, but of Mary Brown and Johnny Black. It is this which makes her work an art. Whatever psychology can do, then, to enrich that art spontaneously will be acceptable.

From this point of view Münsterberg's fear seems to me overwrought. He claims to "detest this mingling of the teacher with psychology just because" he (Münsterberg) does "not wish to destroy in him the powers of sound and natural interest." "Certainly," he says, "the teacher ought to study children and men in general, but with the strictly anti-psychological view; he ought to acknowledge them as indissoluble entities, as centers of free will the functions of which are not causally but teleologically connected by interests and ideals, not by psychological laws." All this is true in a measure. But the writer seems to have overlooked the necessity of showing that some analytic psychological interest *is* inimical to an interest in men and children as unities. As well say that a knowledge of grammar and rhetoric necessarily destroys the creative art in the literary master, or that attention to technique in the end mars the musician's interpretation of musical unities.

Again, not all teaching processes will yield to a purely teleological view. Interests and ideals are very good stimuli when we consider the aim of education; but when the teacher undertakes those great school aims of reading, writing, arithmetic, and English expression, she knows her problem is one of strict causation, and stands in need of all the light she can get on its conditions and processes.

Our first question really is, therefore: What are the net reactions of physiological psychology upon the practical art of teaching? And the answer suggested thus far seems to be that physiological psychology deals with a body of knowledge a share of which may vitally influence the teacher's attitude, judgment, and adaptations in the exercise of her art. But in the light of physiological psychology we cannot as yet prescribe a body of universal norms for method, at least so far as the psychical aspects of these problems are concerned. A great body of psycho-physiological data has been developed, and yet we can point to but little in method due to it which is radically new. Its reaction is as yet indirect rather than direct, and incidental rather than fundamental. It will belong rather to child study and the ultimate development of a genetic psychology to effect a radical revolution in either the educational scheme or method. Even in the claim that physiological psychology offers good auxiliary material for the teacher's professional judgment, we should be modest and admit that such material is very limited.

But while we can at present concede no very great influence upon the teaching art to physiological psychology, we shall have to recognize its growing influence upon that other field which is preliminary to the teacher's art—the field of planning, organizing, and managing. These are matters which we tend more and more to reduce to a science, because they deal with conditions which have to be met by general requirements. It is just here that physiological psychology can be most useful. Whatever has to do with the hygienic and sanitary conditions surrounding the child, with the healthful and fruitful use of his senses and muscles, with the conservation of his best powers for development, with the economy of time and energy, must reckon

with physiological psychology. The grounds for any such claim are to be found in the fact that the teacher deals directly, not with a spiritual being, but with a physiological one. Her problem is to control physical conditions and physiological processes in those ways which make for the best mental growth. From the same point of view the planned organization of a school should take its departure. The mechanics of stimulation and reaction, in other words, is the key to the organization of a school. Let me illustrate in the case of a single physiological law. It is well established that sensory-motor arcs begin medullation—i. e., begin to mature functionally—at the motor end. This is a principle which may well affect the approach to many school activities. That mental awakening is first a matter of muscular activity—i. e., adjustment physically for purposes of higher sensory development—is a truth which school organization can no longer disregard.

Thus far we have touched rather general aspects of the question. Let us turn now to a few, more specific conceptions by way of illustration, either belonging to, or associated with, the field of physiological psychology.

Prominent among those conceptions which may claim some attention educationally we must place that which I have just spoken of as the "mechanics of stimulation and reaction." All that belongs to this conception can affect both the teacher and school organization in a variety of ways. To begin with, it makes clearer that practically there is no real distinction between physical and mental training—an idea that should have liberal reaction on education; that one system of education is superior to another, not because it develops mind and body, but because it develops both in one to greatest fitness; that one method is better than another only in so far as it stimulates and trains most in harmony with physiological conditions. The best illustration that can be given just here is that of teaching the language arts. Here the teacher must deal with a large number of issues; every language art involves a number of senses, their central association, and certain habitual movements of expression. Each new form of expression rests in part on previously acquired forms. The character of expression is determined for good or bad by unconscious habits of expression, by the character of sense-activity, by the tendency to prefer one sense to another, etc. All these issues and many others find a rational solution when studied in their relations to brain-processes, where their organic connections can best be brought out.

(It may be well to add here, parenthetically, that physiological psychology is helping to modify our conceptions of physical training. These conceptions have been extremely crude at times in the past. Brute force, prowess in feats of strength and speed, and agility have too commonly been our limits. Now we shall have to include in the conception all that training which affects the arts of expression, personal grace and force, and skill in any practical art; and all of these matters of physical training will have to be combined and unified in one system of educational practice.)

We are fast approaching the time when all processes of training whatsoever

will be studied and undertaken in the light of what has been found to be sound and true of physical training. As a matter of fact, I do not at present recall any philosophy of exercise or drill in school work which has back of it as sound reasons as the pugilist puts into his training. Who of us, in fact, can tell when, how much, and how best to drill? Yet drill *is* unquestionably, and always will be, a fundamental process in the schoolroom. This much we know, that all stimulation is productive of destructive (i. e., catabolic) change, and that growth (i. e., anabolic change) is dependent upon it. This seems to offer some definite rational basis for the sound limitation of stimulation in school work; only the problem still remains: Just where does stimulation cease to be followed by a specific increase in growth?

At present, then, in spite of all that has been accomplished in the study of drill, exercise, fatigue, our knowledge on these subjects is but liberally suggestive, rather than positive and final.

Closely related to the foregoing is the problem of the rhythmic nature of physiological processes, which again is valuable for its educational suggestiveness rather than its finalities. We know that physiological processes, especially those associated with growth and training, are fundamentally rhythmical in character; i. e., subject to strong impulses of activity at certain periods, which are in turn followed by periods of little or no activity. It is very evident that if education can catch these impulses (in language, writing, reading, for example) on the uprise, it will have an undoubted advantage in organization and the arts of instruction; but it is equally evident that at present it never does it except as a matter of chance, for it has no adequate means of identifying the uprise of impulses. Again, what shall be done with the period of rest? is a question by no means solved.

To physiological psychology we owe a clear development of the thought that all experience, direct or indirect, has meaning, value, and purpose only when seen in the light of its reaction upon life; that there is no sensation without action. It would be difficult, indeed, to measure the influence of this conception whose educational imperative demands that all experience and knowledge be worked over in terms of fitting action, conduct, behavior. Here the educational aim and the biological law are as they should be—in harmony.

Again, we owe to physiological psychology a good scientific basis for a fundamental attack upon the old fallacy of the dogma of formal general mental discipline. That dogma can no longer stand. We recognize that whatever general power of attention, memory, imagination, observation, reasoning, and the like, the child possesses are his by right of birth and nature. Here we cannot create; we can only train. And our training must in every case be special, not generic. It is of vast importance to the child that the teacher recognize betimes that only by training his observation, or attention, in many avenues—i. e., by training special powers—has he any guarantee of breadth of power and adjustment. Some of the commonest difficulties

in instruction in the language arts, for example, are due to the fact that the child's attention or observation is all eyes and no ears, or no muscular sense of articulation. Wherever, then, the exercise of these powers becomes necessary, special training also becomes necessary in every instance.

Then, too, we may reverse the statement of the problem. Not only does training in one line not imply training in another, but excessive training in any line may directly diminish for the child his chances of developemnt in other lines. The spectacle is not uncommon of training being carried to the point of arrest of development, if not obsession, manifestly for two reasons: (1) we try to make training in one line so effective that it shall atone vicariously for training in other lines; and (2) at the same time forget the physiological conditions of training. I have not time to illustrate how radically and beneficially the overthrow of the dogma of formal general mental discipline may react on education. The possible practical reactions are countless. Suffice it to say that as a result of neurological investigations in their relation to mental processes, we should in the future prate far less of the training of powers, and make directly and unequivocally for breadth and variety of specific adaptations to environment in the training of children.

The work that has been done on the physical basis of the emotions is another field for educational reflection. Certain matters of instruction, especially where the arts of expression are concerned, a great deal of the teacher's work of guidance and discipline, and much that has to be considered in school organization, must deal with this problem of the emotions and their physiological conditions. Whatever belongs to a fitting æsthetic and moral development is in the last analysis a matter of healthy physical tone and sound physical habits. For example, the mood is one of the most powerful factors in morality, affecting alike conduct and spiritual, if not intellectual, ideals. The knowledge, however, that the mood is the resultant of certain visceral sensations, rationalizes, or should rationalize, our treatment of it.

The fields of suggestion and imitation which have also been very closely associated with physiological research need but a passing mention. We have long been acquainted with their educational significance, especially in all work of social and moral training, and in certain phases of instruction in the arts of expression. Suggestion is a conception which may well claim a still wider influence with teachers. It is a method of stimulation which must be studied for its limitations as well as its possibilities. There are times in the life of the pupil, for example, when the personality of the teacher counts for more than all else. This is well, provided that personality can so temper and control his suggestions as to preserve to the child, and particularly to the youth of secondary or college age, his own intellectual independence and integrity. The doctrine of suggestion, then, which is intimately concerned with all the emotional and intellectual life of the individual, reveals a still higher type of moral influence for the teacher.

I have only been able to cite briefly a few of the conceptions which seem

to me fundamental in the influence of physiological psychology on education. In general, my thesis has been that these conceptions will influence the educational system consciously chiefly thru their reaction upon planning and organization. They have the power to regulate more beneficially and rationally the physical environment of the child and the conditions under which teaching acts are most successful. Their reaction upon the attitude and method of the teacher will remain for the present limited and chiefly subconscious.

OUT-OF-DOOR WORK IN GEOGRAPHY

MARK S. W. JEFFERSON, PROFESSOR OF GEOGRAPHY, MICHIGAN STATE NORMAL COLLEGE, YPSILANTI, MICH.

When the men of the Renaissance discovered the wisdom of the ancients, books came into wonderful honor. Such applications of ancient knowledge as the voyage of Vasco da Gama to India and of Columbus to America only tended to confirm those who knew the writings of the ancients in this homage to their works. Here were men who knew. On their words actions might be based with confidence in the result. Education had simply the task of making these writings known to the young, and they would have the best possible start in life. That is the dominant note of education in those centuries. Yet even then there were men of real power who were building beyond the acquisitions of the ancients, using and improving their methods to get a nearer knowledge of the universe itself as well as the old writings about it. With the expansion of the idea of freedom in the nineteenth century a vast progress resulted from the direct study of the natural world in its every aspect; so vast a progress that the conviction grew that education, too, must dwell less exclusively on the things written down in the classic tongues and more on direct observation of the things of which knowledge was sought.

Our schools call the earth an oblate spheroid—a phrase suggestive of mediævalism. The Greeks called it a sphere simply because they knew it was not flat. The men of the eighteenth century called it an oblate spheroid because they saw it was not a sphere. Modern knowledge of its irregularities will have it a geoid, or just earth-shaped. A ball is a good name for it. Education has now little interest in its shape until the high-school course in physics is reached.

It is felt that the elements of all the sciences are to be taught in the early part of geography, but there is some uncertainty among teachers as to what constitutes the elements of a science. My notion is that we should have, not little books about things, but a little contact with things in the way of illustration. Instead of treating children to a diagram and explanation of the cause of the seasons, their attention should be directed more to the actual facts of the seasons—the varying height of the sun in the sky, the varying

length of the day. It is logical to have the high sun and the long day firmly associated with the heat of summer before we attempt to point out the causal nature of the association. This advice is not new, but it is still needed. Nature study in the schools is an evidence that we are trying to do well by the children in this direction. Concrete geometry in the grades is in the same line and is strongly urged.

It is the question of the laboratory method. In general, the progress of human knowledge has been by observation, and the record and discussion of observations. Progress is enormously facilitated by the records of past work accumulated in books, enabling each investigator to stand, as it were, on the shoulders of his predecessors; but further progress is possible only by further observation, and past progress is intelligible only in the light of the observations on which it was founded. This is the part laboratory methods should play in education. The basal concepts that the race has acquired by observation must be acquired by the individual in the same way. Education was generally defective in this regard thru the fifteenth, sixteenth, seventeenth, and eighteenth centuries. Words were habitually put in place of ideas. The rise to ascendency of science in the nineteenth century was effected by men who rebelled at this domination of the printed word, as they rebelled at the domination of unfit rulers. My plea, the plea of all who are interested in geography today, is that geography, like physics and chemistry, may break away from the dominion of the printed word and start with the basal concepts gained by observation. You all know Horace Mann's story of the children who answered with admirable precision and promptness all the questions put to them about the natural divisions of the earth—oceans, continents, gulfs, and islands; but, when asked by a visitor if they had seen this earth they were reciting about, replied in good faith and unanimously that they never had. The earth itself is all about us. Cape Horn or the Rocky mountains are not more essential parts of it than the region about our house. Let us not have a little book of home geography with which to start our pupils, but let us take them out to make acquaintance with the near parts of the world for themselves. Imagine a course in music with no sounds in it. Imagine the children having all the melodies described to them as things that would be beautiful if they heard them sung, but never to hear them. Do you think they would care much for music or stay long in school to study it? Yet what is this but the method that is employed in geography? Distant lands are described in terms that are made known to the class only in description. Pages of lessons are assigned and hours of classes pass that are unillumined by any gleam of comprehension. Teachers themselves too often have no associations with the matter of the lesson out of the book.

The laboratory of geography is all out of doors. Why not visit it? For geography this is to give the concept of the elements of land form that make up the actual earth, and the meaning of their symbolic representation in maps. Much of the difficulty of modern physiography lies in the reader's ignorance

of the units of land forms as realities, tho many of them are abundant and easily recognized by a child. Rivers have been regarded as water flowing downhill, mostly toward seas or lakes. This river of the definition has smoothly drawn parallel banks between which the water flows steadily onward. But the first river we come to has no such parallel banks; it is a succession of pools and rapids. It is not curious in this; it is not flowing over harder and softer rocks; it happens to flow over masses of homogeneous clay. In the pools the water is circulating slowly, always in part against the general course of the stream. Here the width is five or six times as great as in the narrows. The depth varies as much. Some of the water that has plunged into the pools rises again at the farther border to escape down the next rapid. Not a small part of the water in our river at any moment is actually ascending. In a half-mile walk the other day by the bank of a river, I found it bathed for a third of the distance by water flowing upstream. These things that I have mentioned are not exceptional details. Go out tomorrow and look at the first stream that you encounter. It will certainly show you many or all of these features that I have pointed out. You cannot find the stream with parallel banks and water descending steadily toward the sea. Again, it is a fair chance that you will find the water muddy. If you could examine the stream bottom, you would certainly find gravel, sand, or silt traveling along all the time. How common those color names for the world's rivers: Blue Nile, Red river, Yellow river, Black river, Colorado river, River Rouge, Kara Su, Kizil Su, Rio Negro, and the Niger. As for the stuff that travels along on the bottom, note the sand and gravel sheets left on grassy flats beside the river when the floods of spring have subsided. There is good ground to regard the material other than water which the water bears along in one way or another as perhaps more significant than the water itself. The river is always in a valley. In the lower parts of that valley are always found deposits of the material excavated from that valley. They have come down in the stream. They constitute the soil on which dense populations of men live. They are the gift of the rivers to men, and like the valley itself are the only habitable part of the mountains. The broad valleys and picturesque gorges of Switzerland are no less the gift of sediment-laden streams than are the plains of Belgium, Holland, north Germany, Hungary, and Lombardy, spread out for the densest populations of Europe by the same rivers that won the sediment from the massive Alps.

I should like to believe what I hear, that the high-school age of the middle "teens" is the time to reason, the earliest fit-for-geometry age, and that it is preceded by a stage when it is better rather to attract the attention and drill the memory. This is the period in which most of the work in geography is to be done. I understand further from President Hall that in the very earliest years—along in the first, second, and third grades perhaps—mere showing, without putting a strain on the attention or memory, is more in order. I would definitely try, then, to interest in the earlier years and never seek more

than an emphasized association in the later years. I believe that children know nothing more interesting than the world of out-of-doors. This interest I would utilize. They tell me that children's first interest is in living things, for which reason geography is little adapted, they say, for nature work with the little ones. I find here, however, the best reason why geography is so admirably fitted to their needs: it is so very much alive if you take it in its out-of-door aspects, and not its book forms, which are dead enough. I know a Massachusetts city of forty thousand people where in my mind's eye I see a class of thirteen- and fourteen-year-olds digging away for an hour at the delta disclosed by the temporary draining of a mill pond, changing the course of the inlet stream by simply damming it, and delightfully watching it cut little canoñs and build new cones of detritus at its emergence. They do not seem to think the thing dead. I do not think their little brothers and sisters would have lacked interest. I am sure their minds would not have been strained.

Here my friend the geologist steps in and reminds me that it is all very interesting, but that it belongs to geology rather than to geography, just as my friend the botanist will protest if I stop with my class to look at the grouping of some plants—pure plant geography, of course. This is a realm of nature the botanists like so well in these days that they want to fence it off for theirs under the name of plant ecology. The fact is that geography is regarded as uninteresting by so many incompetent judges that they naturally feel that any interesting thing should be at once transferred to some other department of knowledge. I am not much disturbed by the protests of invasion. The delimitation of geography from other sciences is too difficult for a mere geographer. I must leave that for the school superintendents and professors of psychology. Meanwhile, the world being made of a great variety of things little and big, far and near, I propose to use the little and near ones to give students basal concepts for the great and far.

For that is what it must come to presently. When we have grown intimate with our home river in drought and flood, in summer and winter, let us use it to build up the concepts of Nile and Amazon. Most of the facts of distance places we must learn from maps. Here are other basal concepts to be got ready. Why is it so many of my students tell me that they are permanently "turned around"? That they have fixed notions about the north that do not accord with the behavior of the sun, and will not for all that they may do? If the map of the home locality had been studied and used as the class went about the country itself; if they went about the country with compass in hand—and a compass is as much needed in a school as a dictionary; if they used that map and that compass, however little, to locate and find the things in which they were interested, be it the flowers, the birds' nests, the nut trees, the fishing and swimming places, the skating places, or the other things dear to a boy's heart and good for a teacher to know about, the north would settle down into its place without more ado; and when the

map of South America or Australia had to be brought out, those rolls would not *be* South America and Australia, as they too often are today, but symbols distinctly aiding vivid conceptions of those distant lands.

We Americans are not making what we might of maps. Some of the national departments at Washington are making beautiful ones, notably the Coast Survey and the Geologic Survey. Their maps are cheap, too—much cheaper than any other good maps made anywhere—but not used as much as they should be by teachers, in part because they are not effectively advertised. In the Agricultural Building you may learn by a glance at excellent maps the distribution of products in Germany and Japan, but no state in our Union gives us the same opportunity. In the Mining Building only New Jersey, Maryland, and Japan make use of maps. If you do not think maps so important, look at those I have spoken of; see how much they tell and how well. Compare our map of the Philippines and Porto Rico in the United States Government Building with the German maps of southwest Africa in the Agricultural Building. See how significant is the Land Office set of maps illustrating the history of the Louisiana Purchase. The finest map of North America is a German one in the Education Building. We have not been taught to read maps, and we do not use them. The Filipinos have been allowed to put the north of their great outdoor map of the islands to the east, and all the maps of the Exposition have the south at the top of the page.

President Hall would have us cut down the time given to geography to a fourth or an eighth of the present amount. These quantities differ enough to suggest that they are rhetorical and not to be taken seriously. If a fourth is the proper amount, or even near it, an eighth would seem too little. If an eighth is about right, a fourth is clearly excessive. Such a prescription can hardly come from a careful physician or one who has fully diagnosed the case. The subcommittee on geography of the Committee of Ten, including Americans distinguished for their geographical attainments the world over, admitted that the results now attained are not proportionate to the time they cost. They suggested observational geography from the start and went into valuable details in describing what they meant. They emphasized, above all, the need of teaching more geography to the teachers. There is a sense in which the teachers of geography today know less geography than the teachers of many years ago, and this is not wholly to be regretted; yet unaided forgetting is not sufficient progress. The committee urged in 1893 that an elementary course in physical geography be put in the last year of the grammar school, while physiography should be taught in the last year of the high school as soon as properly trained teachers could be obtained. This physiography, I take it, would differ from physical geography by using the strict logical arguments of geometry, physics, and chemistry in the treatment of causes and effects. While such teachers could not be obtained, a course in geology might take its place; either of these courses to be given as advanced work with field and laboratory exercises. They declared that without such courses as these

a serious danger threatens the whole line of geographic study, for the great mass of teachers of geography have not taken courses beyond the high school; and if they are not taught the elementary processes and principles of these sciences there, they will have little strength as teachers of geography. They cannot go much beyond mere facts and formalities.

This program has been in print now for ten years. What has been accomplished? A year ago I made an investigation into the status of geography in the high schools of Michigan. One hundred and twenty-nine of the larger high schools of the state reported, and the general conclusion I draw is that not a dozen schools in that great state are doing what was advised. The last year in the high school has physiography in but two schools and geology in only six. Add to this that physical geography is not generally taught in the grammar schools, and we have the net result that the course in physiography or geology is simply omitted and the grammar-school geography pushed up into the first year of the high school. The mass of the teachers are still receiving little preparation for good work in geography. The Committee of Fifteen expressed its satisfaction with geography as of great educational value and made it a liberal time allowance in the suggestive program it prepared. Sixty minutes a week of this time was allotted in the lowest two grades for oral lessons. If this weekly hour were given mostly to out-of-door work in the open weather of spring and fall, the best possible foundation could be given for later instruction on the regions of the earth. But it cannot be hoped to get the class ahead of the teacher. The teacher must be got out of doors first and be taught to see. She will find there health and renewed strength for her daily task, and a source of delight in the world about that she has never suspected.

DISCUSSION

D. C. Ridgley, professor of geography, State Normal University, Normal, Ill.—If "out-of-doors" is to become an important factor in the education of the child, it must first have an important place in the preparation of the teacher. This means that it must receive careful attention in the courses of several departments in the normal schools, notably nature study, biology, and geography. I wish to speak briefly concerning what may be done in this direction in the department of geography.

A course in geography in a normal school should be so planned as to give the student an opportunity to have frequent lessons in outdoor or excursion work. Not until the teacher thoroly understands the value of the excursion in his own education can we expect to accomplish what is desired in this line in the elementary schools. The normal schools should send forth a body of teachers so well prepared to do effective work as teachers from the book of "out-of-doors" that they will act as leaven which shall leaven the whole.

To indicate the character of the work which seems to be profitable in this direction, I shall state what has been done in out-of-door work in some of our classes. In the normal-school classes at Normal, Ill., we have visited Mackinaw Dells for stream work; Sugar creek and its branches, for stream work, drainage basins, and divides; the brick-mills, for a study of different kinds of rock and the use of clay rock taken from the mines near by; Miller Park, for a study of a dam and a reservoir; a grist-mill, to see the process of flour manufacture; a rug factory, to see a loom in operation; Deer Park and Starved Rock, sixty miles away, to see how streams have cut their gorges in solid rock.

During the summer session of 1903 in the normal school of Dekalb, Ill., the classes visited a creamery to see butter-making and pasteurizing of milk; Gurler's dairy farm, to learn how milk could be so carefully handled as to make it unnecessary to sterilize it, at the same time making it so valuable that it sells in Chicago for twice as much per quart as ordinary milk.

The longest trip made by the students at Dekalb was one of twenty hours to Chicago. The party numbered fifty. The special purpose was a visit to the stock yards and Swift's packing-house. In addition to a careful inspection of the work at the stock yards, we made short visits to the Field Columbian Museum, the Art Institute, the Public Library, and Lincoln Park.

Not only should the normal school give academic training to its students in work out-of-doors, but provision should be made by which the student-teachers of the training department may conduct such excursions with the children and use the results for class-room work in succeeding lessons.

It is our plan to arrange for some out-of-door work by each class in primary geography each term. The excursion is conducted by the critic teacher and student-teacher, and the work forms the basis for one or more lessons in the class-room. It is believed that practical work of this kind will prepare a student to do efficient work in this line as a teacher in his own school.

There is another and recent normal-school organization in which most effective work can be done in training teachers to make use of out-of-doors. This is the normal-school extension classes. In the city of Chicago, under the direction of the superintendent of schools and the principal of the Chicago Normal School, classes have been organized and provided with teachers wherever twenty-five or more teachers wish to pursue the same line of work. In this way several thousand teachers of Chicago are systematically pursuing some line of study which is certain to increase their efficiency in the class-room.

During the spring of 1903, while teaching in the Chicago schools, I was invited to meet a group of teachers for a lesson in geography once each week. At one of these meetings I asked whether any would like to go on Saturday excursions. A number wished to do so, and an invitation to meet on a certain street-crossing on the following Saturday brought out a dozen teachers to visit the stock yards. Two weeks later twenty-seven visited the Weather Bureau station in the Auditorium tower. Professor Cox took us into his inner room and showed us how he makes weather.

In May twenty-five teachers went forty miles to visit Dunham's horse farm—two thousand seven hundred acres and five hundred horses. We were met at the station, driven to the farm-house, and entertained at dinner. This was followed by as fine an exhibition of horses as the original of Rosa Bonheur's famous "Horse Fair." We were then driven over the two thousand seven hundred acre farm with its fine grounds, woods, deer park, great fields of corn, oats, and hay, making our final stop at the railway station. All this was due to the courtesy and generosity of the owners of the farm.

One Saturday in June sixty teachers made a trip along the Drainage Canal by special electric car to Romeo, four miles on canal by boat, visited the controlling works at Lockport, took dinner at Joliet, visited the Des Plaines river to get the relation of dam to power-house, saw how the Illinois and Michigan Canal crosses the river, examined the lock in the canal by which boats pass the dam, and visited a stone quarry.

Such excursions prove to teachers the value of out-of-doors to themselves and make them more desirious of having their pupils read lessons from the same great book.

The normal schools are not alone responsible for such training of teachers. A large responsibility rests upon the superintendents and principals of the schools thruout the country. If out-of-door work is to be done, these are the officials who can have it done if they believe in it and make it a part of their school creed.

In the handbook of the Stockton (Cal.) school exhibit in the Education Building, Cabinet VI is described as illustrating the school excursion. Twenty-six separate excur-

sions are here listed, and work on each is exhibited in the cabinet. They include excursions to factories, gardens, orchards, mines, irrigation works, oil refinery, farms, and other places of interest to the child. An examination of this cabinet shows most excellent results. The children have had an opportunity for map-drawing, illustrative drawing, wide observation, and language work, never supplied by schoolroom conditions alone. The actual experiences of the children are well shown in this exhibit. This illustrates well what is done in one school and is suggestive of what superintendents and principals may do if they consider this kind of work of great value.

If we believe that the work of "out-of-doors" is good reading for the child, let us see that the teacher is prepared to do this work as well as the lessons in arithmetic, grammar, reading, and other common branches of the school course.

Miss Montana Hastings, supervisor of the training department, State Normal School, Kirksville, Mo.—True teaching is not so much the process of giving information as it is the process of awakening thought or finding the interest which already exists, then proceeding to make conditions favorable for the child's development.

From the beginning the child has a keen interest in home, music, myth, and nature. He can be easily approached thru any of these centers. In fact, his very organism demands that he be given freedom to develop from all these centers. Nature needs no introduction to him. Every call from woods and fields finds a ready response in his own soul. He has observed nature all the years of his early life, and modern education demands that this observation shall not cease upon entering school. The world of nature is his world, and he should not be denied the privilege of knowing the use, and loving the beauty, of his own realm. The teacher should study to direct his explorations intelligently, and, by a systematic accumulation of material for closer study, help him to drink the deeper from these wells of rich, varied, and thoughtful experiences.

The children should make the collections. They will mean more to them. The close observation of the specimen in its environment will vivify the most commonplace subject. The frog swimming in the pond, hopping in the grass, sitting on the log, is worth more to the child's education than a dozen in glass jars brought to the class for laboratory study. But after the child has seen the frog in its environment, a collection of frogs' eggs used for the purpose of observing the process of development furnishes material for an intensely interesting and profitable study.

Collections should not be made merely for the sake of having collections. The elementary-school room is not the place for a museum where specimens are kept scientifically labeled for the sake of the scientific names. These become valuable to the child only as he learns to interpret their meaning. Each collection should be made for a definite purpose, at the proper time, and in the best way; and if the specimens are to be kept for future study, arrangements should be made for their preservation; if they are not to be used again, they should be removed from the room. Too often specimens are shelved, or hung promiscuously about the room; and even the windows may be found piled up with uncared-for spoils of the field. Dust accumulates and pests—mice, for example—infest the place. A feeling of disgust arises in the mind of the naturally orderly child, and much of the educational value of the work is lost.

To many teachers field lessons mean an unsystematic, aimless gathering of material. But according to the experience of the best teachers in this work it is considered most helpful always to plan the lessons around certain centers of interest. If it is a lesson on plant life, select some plant-life center—for example, the distribution or the propagation of common plants; or a single tree may furnish a great center for interesting study. If it is a geographic center, choose some "geographic unit," such as the slope, rain and its work, divides and drainage, etc. Thus the child is enabled to see relations, and will easily and naturally be led to look for the underlying meaning.

The following centers of interest may be found in the child's explorations, and the material may be accumulated and used as suggested:

Seed-dissemination.—On such a field trip the children will observe what seeds simply fall to the ground, what kinds are carried by the wind, what ones stick to their clothing, what seeds are carried by the water, etc. The children should return with specimens of as many kinds of seeds as are found, and in the next few lessons study the structure and appendages of the seeds and fruits which aid in their dispersion. These questions will arise: Which ones of these plants are injurious to crops? Can anything be done to prevent their distribution?

Bulbs and root stalks.—Make a collection of wild-flower bulbs, as the dog's-toothed violet, jack-in-the-pulpit, blood-root, meadow lily, wood sorrel. Plant them in a protected place. The following spring the children will feel fully repaid for their efforts. If possible, secure a collection of hardy plant bulbs, as the jonquil, the narcissus, and the tulip. Let the children prepare a bed for them near the house and on the south side. The artistic arrangement should be considered. Also another collection, such as the canna, dahlia, gladiolus, should be carefully packed in sawdust and kept until spring. Bulbs and fleshy roots of the garden vegetables furnish material for much practical study.

Potting plants.—Make a collection of slips for rooting and potting. Let the children prepare the soil and perform every step of the process. Thru this kind of work they will learn many valuable lessons on the propagation of plants which mean much more than the gathering of flowers to be picked to pieces, or simply the gathering of leaves for mounting.

Caterpillars.—The tomato worm is the most interesting. Collect a few—one may answer the purpose. Place him in a box of soft earth, and watch him sink himself into the darkness to remain until the warm days of spring, when he will emerge a new creature. How wonderful this is to the children.

Forest.—Trees in autumn: Collect foliage, fruit, nuts, buds, and branches. Observe conditions. Trees in winter: Collect small twigs, and cut off instead of breaking; compare. Trees in spring: Collect twigs, with leaf buds and flower buds; observe; compare. Select one tree for special study. Bring to the class-room for inspection leaves, buds, fruit. Leaves, if any, effected by insects. What insects infest the bark? Do the insects sting, or gnaw the leaves or suck the sap?

Galls.—A collection of galls from weeds and trees would be interesting, if studied carefully.

Soils.—Select, if possible, an area that includes a variety of surface, such as hills, slopes, valleys, open areas, lowlands. Several valuable excursions may be made with soil as the center of interest. Let the children find different kinds of soil, and place a sample of each kind in small paper sacks—one variety in each sack—and bring to the class-room. Samples of clay, loam, sand, vegetable mold, and mixtures will be brought. These samples will furnish material for several lessons. Experiments should be made to ascertain the physical properties of the soil which are concerned with plant growth.

Forms of land and water.—Much has been said in favor of the sand-table and the molding-board for giving the child adequate notions of the different land and water forms. These may do in absence of better material, but so long as there are hills, slopes, ponds, and running streams, where the children can see almost any type of relief, why depend upon inaccurate representations to give true concepts? After the child has learned the different types of geographic forms from actual observations, he can be taught to map them intelligently with any material commonly used for map work: clay and other material to build relief maps; chalk-modeling of plain, stream, divide, mountain, and outline maps. These can be produced with a clear understanding of every line and stroke.

From such experiences the child can be taught to symbolize the world.

DEPARTMENT OF MANUAL TRAINING

SECRETARY'S MINUTES

FIRST SESSION.—Wednesday, June 29, 1904

The Department met in the assembly hall, south gallery, Agricultural Building, at 2:30 P. M., and was called to order by the president, Arthur H. Chamberlain, Pasadena, Cal.

After a brief address of welcome, the president introduced W. S. Jackman, dean of the University School of Education, University of Chicago, who presented a paper on "The Constructive Idea in Education."

This was followed by a paper on "Manual Training in Sweden," as shown by exhibits, by Mr. Carl Lidman, Stockholm, of the Swedish Commission, Education Department, Louisiana Purchase Exposition.

Following were reports on school work as shown by exhibits:

a) From the Teachers College, New York city—Miss Mary Hyde, instructor in manual training, Teachers College, Columbia University, New York city.

b) Indianapolis, Ind.—Louis A. Bacon, supervisor of manual training, Indianapolis, Ind.

c) Pacific coast—Miss Ella V. Dobbs, supervisor of manual training, Helena, Mont.

d) New York city—Clarence E. Meleney, associate superintendent of schools, New York city.

e) Bradley Polytechnic Institute, Peoria, Ill.—Charles A. Bennett, head of department of manual arts, Bradley Polytechnic Institute, Peoria, Ill.

The chair then appointed the following committee to nominate officers for the following year:

Jesse D. Burks, Paterson, N. J. Bert M. LeSeuer, Schenectaday, N. Y.
Miss Ella V. Dobbs, Helena, Mont.

The chair appointed a Committee on Resolutions, as follows:

Frank M. Leavitt, Boston, Mass. Cree T. Work, Denton, Tex.
Anson W. Smith, Brooklyn, N. Y.

The department adjourned to Friday, July 1, at 2:30 P. M.

SECOND SESSION.—Friday, July 1

The meeting was called to order at 2:45 by President Chamberlain in the assembly hall of the Missouri State Building. A paper was presented on "The Manual-Training High School *versus* Optional Work in the Regular School," by Charles B. Gilbert, New York city.

This paper was discussed by C. M. Woodward, director of Manual Training School, Washington University, St. Louis, Mo.; and a brief reply was made by Mr. Gilbert.

At this point the following resolution was offered:

Resolved, That the following resolution be presented to the National Educational Association thru its Committee on Resolutions:

Inasmuch as many teachers and artists have so enthusiastically indorsed the statuary and decorative sculpture work of the Louisiana Purchase Exposition, and inasmuch as we believe that the preservation of much of this art would conserve the highest interests of the art side of our educational efforts, be it resolved:

1. That the National Educational Association hereby petition the management of the Exposition to preserve the said works of art, and to donate them to the schools of this country.

2. That the President of this Association appoint a committee of five of its members to confer with the management of the Exposition regarding this matter, to plan and execute all details, such as receiving whatever may be donated, the distributions of such donations, etc.

3. That said committee be, and is hereby, authorized to draw upon the treasury of this Association for such sums as may be previously approved by the Board of Trustees, for the purpose of defraying necessary expenses in the preservation of said art.

O. A. Hanszen, director of manual training, public schools, Dallas, Tex., explained and advocated the adoption of the resolution.

The resolution was adopted.

The remaining papers of the program were then presented as follows:

"What May Be Done in the Country Schools?" by Alfred Bayliss, state superintendent of public instruction, Springfield, Ill.

"Progress in the South, as Shown by Exhibits," by Brown Ayres, dean of the Academic Colleges, Tulane University, New Orleans, La.

The Committee on Resolutions presented the following, which was adopted:

Resolved, That the Manual Training Department of the National Educational Association hereby expresses its appreciation of the opportunity afforded by the management of the Louisiana Purchase Exposition and of the National Educational Association for observing the extensive foreign and domestic exhibits of manual training and industrial work; that these exhibits are to be approved for their scope, their arrangement, and the skill and progress they display; and that the exhibitors be, and are hereby, commended for their efforts in thus adding greatly to the effectiveness of the educational display at the Exposition.

The Committee on Nominations presented the following report:

For *President*—Arthur H. Chamberlain, Pasadena, Cal.
For *Vice-President*—Chas. L. Kirschner, New Haven, Conn.
For *Secretary*—Frank M. Leavitt, Boston, Mass.

Upon motion of Charles A. Bennett, it was voted to adopt the report and to instruct the secretary to cast one ballot for the nominees. The ballot was so cast, and the candidates were declared elected.

The department then adjourned *sine die*.

FRANK M. LEAVITT, *Secretary*.

PAPERS AND DISCUSSIONS

THE CONSTRUCTIVE IDEA IN EDUCATION

WILBUR S. JACKMAN, PRINCIPAL OF THE UNIVERSITY ELEMENTARY SCHOOL, UNIVERSITY OF CHICAGO, CHICAGO, ILL.

It is not the purpose of this paper to discuss at length the psychological basis of manual training. There is now a general agreement that a free play of motor activity is fundamental in the development of mental images or pictures. It is generally recognized that to inhibit the motor impulses or to direct them toward a wrong or trivial end is to stop mental growth as definitely as tho we were to impair or destroy the senses themselves. It can do no harm, however, to pause for a moment to emphasize this point. During the past decade and a half the great importance of sense-training has been duly set forth. This, naturally, has induced a careful consideration of the entire subject of expression, but we have been slow to realize the real and vital relation that expression bears to the work of the senses in the educative process. Expression in all of its forms has been regarded as important chiefly as a means of discipline; we have looked upon drawing as being useful mainly because it is a means of training the eye; upon modeling as a means of train-

ing the touch; upon manual training and physical culture as a means of disciplining the muscles and of developing the human form; whereas these are but the incidental, tho necessary, ends. The real purpose of all these forms of motor activity is the development of a mental image or picture which is at the same time being realized in a useful and valuable external and material product. It is an important fact to note that when a subject of study is pursued primarily as a means of discipline, whether it is discipline for either mind or body, it at once becomes juiceless, uninteresting, and, educationally, worthless—the very end itself for which it is pursued being defeated. It is the failure to understand the true function of expression that is responsible for lack of skill; and it is the lack of skill that has led to the insistent demands for drill work, in all its various forms, in order to reach that degree of skill which it is necessary to acquire in order to produce an actually useful and valuable external product.

The careful consideration which the constructive idea is beginning to receive at the hands of thoughtful teachers is starting a real reform. Here and there some spirits are leading the way to better things. Here and there others groping blindly have followed in sheer desperation, seeking some relief from the deadly grind of the old régime. There is a great outcry against much of the old. We now have some drawing and painting, and clay-modeling, some manual training, some textile work, some bookbinding, some iron work, etc., where a dozen years ago we had nothing of the kind; and this is encouraging. It has brought great relief, for which all should be profoundly thankful. It has given variety where before was monotony; and this is an improvement. It still remains, however, that as yet the place of art and industry as an integral part of the curriculum is undetermined. No one can be found to say certainly what the final motive for this kind of work is. People do not yet agree as to what kind of work should be undertaken, nor are they certain as to what should be done with the products of such labor.

This general confusion of mind is due to the fact that all work in expression is usually considered by teachers as a means of securing some kind of discipline thru repetition or drill. When the teacher actually discovers that discipline is neither the primary nor the immediate aim, but that the only function of expression is the development of the image, the relation of the different modes of expression to each other becomes at once very clear. The teacher is immediately compelled to seek for an image that is worth having, and the proper social motive causes him to seek for it among the varied needs of mankind.

Many teachers, however, do not see this, and they are still in a state of mental confusion regarding the real reasons for the work. In the early periods of manual-training history one of the arguments used against it was that it tended to educate children for the trades. This objection seemed to imply that a tradesman or a craftsman is a child of misfortune. We have given much attention to its ethical power, its moral worth, its disciplinary

value to the muscles, and to its hygienic possibilities; but these virtues seem to be conceived as abstractions valuable as educative means in proportion to the distinctness of the separation from practical and useful results. So, the long and weary years of nearly two decades have passed with children making joints that never inclose anything. They have made wooden spoons in a country and for a people where wooden spoons have never been used. Such has been, and such still is, generally speaking, our conception of educative processes thru a cultivation of the motor activities.

The attempts made to foster the artistic in the schools present much the same history. We have procured numberless pictures and sculptured forms that other peoples have made under an inspiration that now has greatly weakened in human life, and we have told the children that a study of these is their elementary lesson, their first step toward a knowledge of the beautiful. Associated with these methods in education—and I fear we must call them the results—are the serious facts that we have neither craftsman nor artists who will attribute much of either their outlook or their skill to what they were able to get in the ordinary schools.

It serves but little purpose to say that we must put the pupils to work. Children are at work already by scores and hundreds in the southern cotton mills, where I have watched them, in the midst of the unspeakable clatter of the machines, move back and forth like weary human shuttles tying threads that were endlessly breaking. It is a wonder that someone has not before this thought to correlate literary culture with this industrial work by having the children read the beautiful story of Sisyphus. There are in Chicago, I have been told, fifteen thousand children who at an all too tender age are toiling in the shops; and in the country, much of the farm life for children is but little better. Rather than this kind of industrial training, let there be open air and sunshine, with no labor at all, but, instead, let us have continual idleness and play.

Thru all this confusion in the detail of school-teaching we may be encouraged to believe that a few fundamental principles are beginning to operate in the direction of order. The one that I would mention, as of chief importance, is that occupations, whether play or work, are the basis of the social relation. An aggregation of human beings is by no means necessarily a social body. The only influence that can change an aggregation into a social unit is that which goes with occupation and industry. Formerly this was accomplished in the schools chiefly thru play; lately the effort is being made to develop and cement the social ties thru work. The question now is, What work?

It would seem that the motive for constructive work must be found in the needs of the home and the community at large, which to the pupils are plainly evident. The gap which separates the home and the community as they are from what they should be is one that in large measure must be bridged by hand-work.

In order to enlist the best efforts of the pupils, the scope of the work must be greatly broadened. Until recently, constructive work has meant almost exclusively woodwork or sloyd, and. as it has been stated already, it has been concerned in results outside of and beyond the pupil's interests. This has been improved by attaching less importance to technical perfection, and by giving more attention to the function and purpose of the thing made. In the best schools there is but little attempt to formulate a set curriculum composed of definite exercises, the work taking on more and more the color of local conditions. In one school observed, for example, the primary pupils spent a part of the year in building a good-sized playhouse for the kindergarten in the same school. They not only built the house, but also made toy furniture; they decorated the walls with materials selected by themselves and according to designs of their own. They painted the outside to suit their own taste, and in doing all of this they felt the pleasure and received the reward that come to those who help others more helpless than themselves, and they also got a few fundamental ideas of a practical character on the subject of home-making. This involved constructive work of many different kinds, and the value of each was many times enhanced by the unifying idea which made them all necessary. This is vastly different from the plan pursued in the earlier stages of manual training, where the pupil worked thru a set of exercises upon an entirely false interpretation of the principle, "from the simple to the complex."

In the upper grades there is no reason why the pupils should not work upon repairs and other matters needed about the school and home, under the direction of the teacher. The value and usefulness of such work make a direct appeal, and the result can be measured in the usual terms employed in everyday life.

Another most valuable form of constructive work is sewing, which is especially appropriate for the girls. At the graduation of the pupils from the Jewish Training School in Chicago, of which Mr. O. J. Milliken is principal, the girls, some eighteen in number, wore dresses which had been measured, cut, and made by themselves, each pupil making her own. More than this, each girl by helping in the school lunch-room had earned the money with which the dress had been purchased. By every test that we can apply to values in human life, as to attainment, culture, and ideals, this work was far better for these eighth-grade pupils than any amount of the usual graduation essay-writing which we commonly find on such occasions. The children should be taught to sew by sewing from the beginning something which is worth wearing, something which the child can appreciate thru its actual worth as a made product.

A third division of constructive work which has much of promise in it is clay-modeling. This is especially true when the products are either finally cast in plaster or burned in a kiln. An outfit for simple, effective, and useful work in pottery is not very expensive, and when once in operation it opens up

a new world of artistic constructive work that is fascinating to the pupils. It fascinates because, by means of it, each sees how he can make a direct contribution to the artistic life of home and school. It is an exceedingly simple and direct means of expression. The plasticity of clay lends itself readily wherever the question of form either for use or beauty is involved. In plaster, or when glazed and burned, the products become permanent—a fact which adds immensely to the value of any form of expression. The result may take the form of a plaque or panel designed for some space needing a special decorative piece; or it may represent a graphic shape and incident in history; or as a vase it may represent the pupil's idea of the human form. In all of these directions it makes a demand for initiative that places it at once in the front rank as a means to mental growth.

Another line of construction which lends powerful support to much school work of other kinds is that of printing from types. I have in mind a beautiful piece of work that was done in the Francis W. Parker School by Mr. Merrill, the teacher in German. The pupils read a German story, and afterward dramatized it. The play was set up in type, printed, and beautifully bound. The final form of the result was valuable because it was useful, beautiful, and permanent. It involved initiative, thought, and skill on the part of the pupils, and it therefore afforded discipline of the highest type, without there being any sacrifice of time and energy to empty drill. This work was none the less interesting from the fact that when the teacher began he was without definite knowledge as to the methods and processes involved. The teacher and pupils worked it out together.

Another field that offers almost unlimited opportunity for constructive activity is that of cooking. Children from the lowest grade up may and do take part in this with the greatest pleasure and profit. In connection with a well-kept garden it is an original source of instruction that is most valuable. It yields products whose value bears a direct and a very evident relation to the knowledge the pupil possesses and can acquire. The younger children take part in much of actual cooking; in preserving fruits by various methods; in making jellies and in arranging these for immediate use on the table; they can assist at serving at the table and in many ways contribute to the social welfare of their classmates and parents. The older pupils look farther into the deeper scientific meaning of the work. Experiments in chemistry and physics are needed, and these call for an increasing delicacy and dexterity in manipulation that make this subject from the constructive side alone rank second to none among those that have been mentioned. A thoro and scientific knowledge of this subject, perhaps more than any other, is needed in every home. Upon no other one thing does our well-being—physical, mental, and moral—so closely depend as it does upon wholesome, well-prepared, well-served, and properly eaten food. That the people should for a much longer time treat this occupation as a side issue in education seems to be incredible.

There should be a sharp line drawn between the class of constructive work

just described and a large amount of hand-work that springs from another motive. In working out the culture-epoch theory as it is commonly applied, the children are now allowed to do a large amount of hand-work representing different aspects of the primitive industry and activity. This is of a distinctly lower type, since it is always in accord with a pattern of some sort that has been derived from pictures, descriptions, or other historical sources. When a child builds the model of an igloo used by an Eskimo or the model of a wigwam; or when he builds a rude brick oven in which he bakes potatoes; or when he reproduces a vase in clay, or some form of wood or wicker ware once used by primitive peoples, he is employing a direct form of expression that is invaluable in enabling him to imagine the lives of earlier peoples, and he is getting directly some notions of the conditions that surrounded them. These lessons and such construction are purely illustrative, and they are valuable because they do something toward enhancing indirectly the pupil's appreciation of his own life and its conditions. But they are to be classed with the so-called experimental work in science which is done for the purpose of illustration or to verify the work of others. It is a mistake to claim that such work has much of original value. To be sure, it must not be lightly treated. But it is absurd to suppose that the pupil is discovering anything in particular when he is doing it. When the children build wigwams, "long houses," and similar structures, they are not working out original primitive instincts; they are merely trying to illustrate in a rather faint way, and in play, that which they have been told in a story. Such exercises involve the constructive idea, and to the limits which we encourage play in children they should be encouraged. But they never should, and they never can, be ranked with the constructive work already described, which leads to a product that is valuable, because it is useful and beautiful. The fact is that the primitive instincts of childhood work themselves out independent of the materials employed. The actual need is that they be given freer opportunity to treat thru play, and work in their own primitive and original way the material that is normal to their surroundings. They will thus be enabled to go farther and do better, because what they plan and do will be aided by what they can see. They will not be wholly dependent upon what they have read or have been told. Thus the primitive instincts will work themselves out more fully thru a playhouse made of an old store box which can be fitted up along the lines of a modern dwelling, than they will thru a wigwam which they try to construct after a description or picture. The vital thing to be looked after is the primitive instinct itself, not the material which some primitive people have used or the plans of living they may have followed.

To sum up, it would seem that the constructive idea tends to work itself out with children in two ways: (1) it includes such work as bears at once upon the present social and economic conditions, and it deals with materials derived from the child's own surroundings; and (2) it appears, in play mainly, in an attempt to illustrate stories that they read or that they have been told. It is

not the intention to set one of these over against the other; each has its place, which should be duly recognized by the teacher and properly provided for. There is a tendency now, however, to carry the work under the last head too far along in the grades. It is childish, embryonic, and quickly over with. In the latter division one must put much of the work that is so popular with unthinking teachers. Under this head will fall much, if not all, the work in raffia, bent iron, basketry, mat-weaving, bead-work, and all such forms that do not, and for the most part cannot, result in products whose value the pupils themselves can appreciate. It is almost pathetic to see how teachers wax enthusiastic and eloquent over these transient and trivial aspects of the constructive idea, but remain cold and indifferent to those aspects which when properly worked out mean so much in every way in human life.

These are matters, however, which time and thought will at last properly adjust. The tide has turned, and the current is setting in the right direction. Time was when scholarship and culture were estimated in accordance with one's knowledge of books; the time is rapidly approaching when they will be measured also by what one can do with his hands to uplift the life of man. A good book is worth its influence; its writer is to be estimated in accordance with what he contributes thru its pages toward the quiet and sanity of living. There is no real reason why the man who makes a chair or a table or a bit of ornament in clay or plaster which adds to the peace and comfort of life should not rank in terms of power, of scholarship, and of culture with the one who writes the book that does the same. The value of the output, of the product, in terms of human life, is the test of both, and who shall say that one is the lower and the other the higher? True culture, in algebraic phrase, is the product of righteous thought and action; it is the legitimate offspring of the brain and the hand. Under this conception of culture, the goal of all educational effort, the constructive idea as a means of education has its place assured.

MANUAL TRAINING IN SWEDEN

CARL LIDMAN, OF THE SWEDISH COMMISSION, EDUCATION DEPARTMENT, LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

Mr. President, Ladies and Gentlemen:

It is well known that Sweden takes an important part in the movement which, directed against exclusive brain-work at school, strives to make systematically arranged manual work an important element of rational education. A Swedish educational sloyd system has been devised and worked out, and afterward adopted in many other countries, both in and out of Europe.

By "Swedish educational sloyd" is meant the system of instruction and the method worked out at the Nääs Slöjdlärareseminarium (Nääs Manual Training College), where most of the Swedish male and female teachers

who impart instruction in sloyd have received their training. In an address delivered at this congress last Monday [see papers of the National Council], the Swedish commissioner, Dr. Lagerstedt, called attention to the Nääs Manual Training College, its foundation, and its work. I will, therefore, exclude this and give a short account of the principles that are characteristic of the Swedish sloyd system, the originator of which is Mr. Otto Salomon, well known also in the United States.

The Nääs system was first mentioned in connection with its significance as a system for training in work, the aim of which was chiefly pedagogical and not economical. The two important fundamental rules of the system stand, of course, in close connection with this: the rule that the instruction shall be methodical, i. e., be given in a methodical way—this in contrast with the plan formerly employed of allowing exterior contingencies to deterimne what should be executed by the pupil; and the rule that the instruction should be given by a *pedagogically trained* person, and not by the first artisan who offered himself. According to the Nääs system, instruction in sloyd shall constitute a factor in general education, and not be a direct training for any special handicraft. Its purpose is: to awaken an interest in, and a respect for, manual labor; to accustom the pupil to habits of order, exactness, attention, and perseverance; to develop in him dexterity, promptitude, judgment, and skill; to train his eye to discern and his hand to execute; to develop a sense of form and taste; to strengthen his physical powers.

Other important fundamental principles are: that the instruction should be voluntary, not compulsory; that useful objects, and not articles of luxury, should be made; that the articles made should become the property of the children, and not be sold for the benefit of the school; that the work should be carefully executed, and not carelessly done; and that the work should be carried out with the body kept in a good position. It may perhaps seem that all these requirements are self-evident and scarcely worth mentioning. But they and several others have first been adopted as parts of a connected whole, in the Nääs system, and each of them has had to strive hard in order to gain any great degree of general recognition.

Concerning the Nääs method, its chief characteristic is that, in contrast with many other methods in the sphere of instruction in manual labor, it does not build upon practicing abstract exercises—sawing, planing, the use of the chisel, etc., etc.—but upon the making of concrete objects which can be used in daily life, and which hold good when viewed from an æsthetical standpoint. A series of models is used as a guide in construction; this series again being based upon a series of about seventy exercises. As a result of the series of models being based upon exercises, any one model can be exchanged for another which may be more suitable to the place where the instruction is given.

Thus, in the matter of instruction in sloyd, the Nääs system has endeavored to apply the didactic rules of proceeding from the easy to the more difficult, from the simple to the more complex, from the concrete to the more abstract.

As patterns the Nääs method employs either models only, or both models and drawings, or drawings exclusively. Among the models there are many which are termed "modeling models," which are of great importance for the development of the eye and the sense of form. Special weight is laid upon the use of the knife, which, according to the Nääs system, should be the fundamental tool.

Sloyd instruction in accordance with the Nääs system is taught chiefly to boys from ten to fourteen years of age, and that is the reason why at Nääs the sloyd instruction has been limited to sloyd carpentry, as being the most suitable for boys of that age. But, as may be seen from the Swedish school exhibit, there are two other kinds of sloyd that have been introduced into several schools—for instance, the Stockholm common schools—namely, cardboard sloyd and metal sloyd; but these also have the same purpose, and are arranged in accordance with the same system as the one exhibited by the Nääs series of models.

The Swedish school exhibit contains also a series of models in manual work for girls, or, as we call it also in this case, sloyd; and this is the reason why I think it proper to make a few remarks in regard to this girls' sloyd.

Instruction in girls' sloyd is not compulsory in the schools of Sweden. A subvention from the state was first obtained for girls' sloyd in 1897, the boys' sloyd having enjoyed that advantage already some twenty years earlier. Girls' sloyd has, nevertheless, been kept going, and during the last two decades it has even succeeded in acquiring a place in the curriculum of many schools where this subject was previously wanting.

The cause of this is that we begin more and more to see the importance of manual work of different kinds as a means of education. In connection with this the necessity has arisen of having a system for the subject in question. Such a system existed already in Germany; viz., the so-called "Schallenfeldt method." In the beginning of the eighties this method was introduced into Sweden, but it was soon found to be less suitable to our conditions. The question then was to work out of this method a Swedish method of our own. An attempt in this direction is the "Stockholm method" (common-school method), planned by Miss Hulda Lundin, superintendent of girls' sloyd in Stockholm, which has been introduced extensively both into our training colleges and into the secondary schools for girls.

The aim of the instruction in girls' sloyd, according to the above-named method, is to exercise hand and eye; to quicken the power of thought; to strengthen love of order; to develop self-activity; to inspire respect for carefully and intelligently executed work; and at the same time to prepare girls for the execution of their domestic duties.

The solution of this problem is in no wise easy, but the experience of years has taught us that it can be obtained by applying the following principles:

1. The instruction should be given as much as possible by practical demonstration of the subject. In sewing it is accomplished by a sewing-frame, and in knitting by means of large wooden needles, and balls of thick, colored yarn. At the same time blackboard drawings are constantly being used.

2. The exercises should be planned and carried out in the most strictly progressive order, so as to enable the pupils to execute well the work required of them.

3. When the pupils enter upon a new phase of work the instruction should be given to the whole class collectively; otherwise the time which the teacher could devote to each pupil separately would be insufficient for thoro instruction.

According to this method the instruction should comprise knitting, plain needlework, darning, mending, marking, tracing pattern designs, cutting out underclothing and other garments.

What has now been said with regard to girls' sloyd is intended to show that the teacher has not only to instruct, but to educate her pupils; and besides technical ability she should also possess pedagogical skill.

There is no longer any lack of efficient teachers. Instruction in sloyd, as above mentioned, has already been introduced into our training colleges for female teachers. Besides this, of late years a number of courses have been given for training teachers in methodical instruction in sloyd. During 1882–1903 more than one thousand teachers have been trained in girls' sloyd by Hulda Lundin's course.

The instruction in needlework in the secondary schools for girls aims at giving the pupils technical skill in plain needlework, knitting, hemstitching, embroidery, patching, darning, marking, etc. The different kinds of stitches are introduced in series, increasing gradually in difficulty.

In some schools a course of plain dressmaking is also given. Besides, the pupils in most secondary schools have the opportunity of learning art embroidery, as during the autumn term they are allowed to do different kinds of fancy work, special consideration being given to the development of their sense of color and of beauty. Swedish patterns and national needlework are chiefly chosen for this purpose.

From what I have now said it may be seen that the Swedish sloyd system is based on certain general principles and not necessarily connected with any special series of models. Director Salomon says very truly:

> Remember that you can work according to our system without using one of our models, and that it is possible to use our models and still not follow our system. We must not forget that the letter of the law killeth, but that the spirit giveth life.

REPORTS ON WORK AS SHOWN BY EXHIBITS

I. POSSIBILITIES OF ART IN CONNECTION WITH HAND-WORK, AS SHOWN BY EXHIBITS FROM THE TEACHERS COLLEGE, NEW YORK CITY

MISS MARY B. HYDE, INSTRUCTOR IN MANUAL TRAINING, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, NEW YORK CITY

A few years ago the term "manual training" seemed a very narrow one, particularly to those more directly interested in other fields of work. Nevertheless, today the manual element in school work is recognized, by those who have given it careful consideration, as an essential factor in the all-around development of the individual.

We all agree to the thought that both school and home training is primarily to fit one for life, the better to cope with problems that arise each day; but is not our struggle as teachers, after all, for *simplicity* in living?

The teaching of handicraft extends far out into the fields of life. In studying materials and processes it touches the industrial world, and the social thru appreciation of labor.

Does it not occur to us frequently that we are surrounded by too many things, both in our homes and school buildings, which have the tendency to make life complex? Let each of us live up to his belief that to have a few good things about one tends to enrich life, rather than to be surrounded by the many of mediocre value.

So many ask the question: "How shall we know the good thing when we see it?" I believe that to have struggled for the most perfect results in making some article gives one the power to judge as to whether a thing is truly good; also judging one's own work by that of others. Love for beauty comes with knowledge; and truest appreciation is gained thru expressing one's thoughts in some medium that lends itself to most careful manipulation, where construction, form, and color have to be considered. Can we not live up to the ideal so appropriately expressed by William Morris: "Let us make only those things we *know* to be *useful* and *believe* to be *beautiful*?"

When in the hands of one person rests the teaching of both design and execution (I speak of design in the broadest sense of the word), the responsibility is great; yet I believe the two ought not to be separated.

At the college last year the course of study in handicraft was planned with the thought in mind that more could be gained by a study and application of natural and rather crude materials, gradually introducing those prepared and more refined. In this way the limitations of one and possibilities in others were emphasized, and the fact that materials must be suited to the objects made. This year a different course of procedure seemed advisable in adjusting plans for a design to precede each article made, which necessitates the introduction of one art principle after the other, working with paper, cardboard, raffia, wools, cord, clay, iron, and wood.

There is indeed a means of expression in whatever medium we work, but paper and cardboard seem to lend themselves most naturally to some of the first principles in proportion and design in general. Two principles that meet us everywhere are those of carefully considered proportion and harmony in color combinations. From this point it is possible to get a little footing by applying the designs made to books, blotter backs, portfolios, boxes, etc., before taking up problems in weaving of rugs or blankets, where combinations in color have to be more carefully considered and the lesson learned that only a well-cut space will produce harmony.

In some problems in weaving, where the color in warp and woof threads is varied, the cutting of a space unsymmetrically gives one a chance to work out a plaid or checked design. In designs for baskets *form* as well as color has to be considered, and with some free-hand cutting as a preliminary the students seem to be able to work out a fairly good form, altho the difficulties to overcome in using materials not yet handled to any extent are almost too great to express what is desired. To be sure, the American Indian woman has oftentimes succeeded in producing beautiful forms in her baskets, has used harmonious colors, and worked out exquisite designs, but all unconscious of their beauty; while we are working for the truest appreciation of beauty.

In connection with sewing: The first problem taken up is the sampler, on which are worked fundamental stitches and those evolved from them; then they are applied to a few articles such as needle-books, cushions, and bags. Simple border designs are readily carried out by the use of outline or cross-stitch on pin cushions and needle-books, while monograms composed of many straight lines and few curved seem well adapted to bags of various kinds; and again color plays an important part in the choice of materials used. Sofa pillows with a stencil pattern washed on with water-colors illustrate harmony in two tones of one color.

Pottery gives one a chance to study *form* as does nothing else in the course; and possibly it ought to precede basket-making another year in consideration of this point. I feel that in no more definite way can one gain a truer appreciation of beauty in the subtile, curved line; for with clay there is no possibility of evading what one has to express, and the sense of touch is developed to a marked degree. As an introduction to the making of a vase or bowl, a study of the arrangement of still-life objects in a given space, and reproducing the sketches in various tone-relations, gives an opportunity to make simple compositions.

Designs for Venetian iron can be worked out in the square, with straight lines and angles; as, for instance, in the old standby—the teapot stand or lantern—making use of long curved lines in bracket or hooks. Punched copper shades surprise one in the possibility to express balance in dark and light most effectively, and color here is produced by burnishing and holding over a flame.

The problems in wood combine knife- with bench-work. Designs for boxes, frames, calendar backs, etc., lead one to consider the construction side first of all; then the most simple decoration possible, perhaps only straight lines, helps one to appreciate that the use to which an article is to be put determines its character. We find stains or water-colors enhance the value of wood if colors suggestive of wood are used, and kept near in value when two tones are combined.

The art element in manual training should be the one to make it live. Where better can we apply the principles: beauty in line, balance in dark and light, harmony in color? Is there not a great opportunity for one to help the cause in construction and applied design if one but feels satisfied with *simple refinement?*

Do you say that, after all, it is the most difficult to express? We often hear one speak of "art and hand-work;" let us rather say "art *in* hand-work." I believe that if teachers do their part understandingly we shall have a public that will learn to appreciate the good or beautiful, and scorn the poorly made article.

II. REPORT ON WORK IN MANUAL TRAINING SHOWN BY THE EXHIBITS FROM INDIANAPOLIS, IND.

LOUIS A. BACON, SUPERVISOR OF MANUAL TRAINING, INDIANAPOLIS, IND.

From a study of the exhibits it appears that something is being done, but much may yet be done, on the art side of manual training. It may be well to consider for a moment why this side of the manual-training work has heretofore received so little attention.

The first reason for this, I believe, is to be found in the history of the movement. Manual training in its inception laid special stress upon the process side of the work. The careful technical manipulation of the tools involved has been thought to constitute the educational value of the work. It was not until later that the product was given consideration. And then it was merely of secondary importance, so that naturally an artistic result was little sought for.

The second reason for this divorce between art and manual training may be found in a characteristic of the American people—the lack of an art appreciation among the masses of the people. It may be that such a spirit of commercialism and industrialism so pervades our national life that utility is paramount, and there is little time for the consideration of beauty. Certain it is that, as a whole, we are not an art-loving, art-living people.

Mr. Fenellosa tells of an incident that illustrates how different are the *common people* of Japan. He and his wife were traveling in that country, and were obliged to wait several hours at a small station for a connection. While sitting on the platform watching the sunset across the rice fields that stretched away in the distance, a freight train pulled up on the track in front of them. Mr. Fenellosa, who speaks Japanese fluently, spoke to the engin-

eer, told him how they had been enjoying the beautiful sunset, and asked him if he could move his train a little so that they could see. The engineer, instead of replying as we can imagine an American engineer would do, was much pleased and backed his train a matter of thirty yards that they might better enjoy the beauties of that Japanese sunset. Is the contrast not a striking one?

That there is a responsibility upon us for the development of a more genuine appreciation of art in this country seems sure.

Few families comparatively are able to have good paintings or pieces of sculpture in their homes. The poorer classes must be content with articles of household use. But how inartistic, how absolutely ugly, are most of these articles at present! And this is not because furniture of good design is more expensive. Good artistic furniture can be made by machinery. It is a fallacy to believe that all machine-made furniture is poor. The reason we do not have better, more artistic furniture is because the public does not demand it.

It becomes our duty, as teachers, to educate the public taste in this regard, and in no way can it be done to better advantage than thru the influence of the manual-training work.

In a similar way, teachers and supervisors of sewing have a mission to perform. Not only can they influence choice in the color and combinations of materials and the decorations employed, but they can have an influence in the manufacture of the materials that they be good in workmanship, in color, and in design.

In both sewing and cooking the economics of the subject should be given careful attention. There is a wide field here for usefulness for manual-training teachers.

Since the introduction of sewing into the colored schools of Indianapolis, the pupils show a marked difference in personal appearance. In some cases the change was so apparent as to cause comment by both teachers and parents.

Another side of the work I wish to touch upon. We will call it the side of the "varied industries." By that I mean manual-training work that does not confine itself to any one particular line of work in any one grade—wood-working, for example. There should be variety and flexibility in the work, and a choice of different materials. This is possible, and even necessary, in a plan of work which embraces healthy correlative problems—problems that enrich and make clear the work of the school. There was made, for example, in the seventh grade in one school this year a small mediæval castle. The pupils were reading *Ivanhoe* and studying the history of the period: the life of the baron, his means of offense and defense; and a small castle of concrete was built by the manual-training class. To begin with, there was the moat, which necessitated two drawbridges, one for the horsemen and the other for the foot passengers. Inside the entrance was the portcullis or iron gate which could be lowered for security or dropped on an advancing foe. Beyond this inclosure was the castle proper. A tower at one place served as a watchtower, and also gave the baron and his family a place of security for the night. The battlements were not forgotten, nor the dungeons beneath the tower. The roof, the drawbridges, and the working parts were of wood, while the walls, floors, etc., were of concrete (sand and cement). The walls themselves were about two inches thick. In this way the children became acquainted not only with the life and customs of the people of that period, their means of warfare, their architecture, etc., but with the field of concrete construction which is so much used at the present time. Indeed, the whole field of industry opens up such a wide opportunity for experiment and investigation that the possibilities for manual-training work are practically unlimited.

The manual-training shop should be a laboratory where the children should have an opportunity to become acquainted with those facts and forces which are making for our industrial progress as a world-power.

From these two points of view, the arts and the varied industries, I would have you especially consider the Indianapolis exhibit. On the art side of the work the use of color

in the finish of the pieces is suggestive. The design of the outline of the piece and the decoration, limited usually to a simple grooved line, all give interesting problems in art; and altho there is much room for improvement, a beginning on this side has been made. On the other side, that of the varied industries, of which the castle and the iron bridge are types, the field is so broad, and so little explored as yet, that scarcely a beginning has been made. But that there are great opportunities here seems certain. The next few years ought to show marked advance along both of these lines in the manual-training work in this country.

III. REPORT ON WORK AS SHOWN BY EXHIBITS FROM PACIFIC COAST

MISS ELLA V. DOBBS, SUPERVISOR OF MANUAL TRAINING, HELENA, MONT.

Certain fortune-tellers finish their prophecies with "what you do expect, what you don't expect, and what is sure to occur." In preparing this report my thoughts have followed a somewhat similar division, namely, "what we have done, what we have not done, and some things we must do." It would be sufficient, perhaps, if I were to speak of our achievements only, but I believe true progress is attained only thru a careful consideration of our failures, with their causes, and an earnest effort to strengthen every weak point. You will pardon me, therefore, if I emphasize the second point.

In considering what we had done, the exhibits speak for themselves, tho they do not always give a correct impression of the real situation. A small school by great effort may make a fine display. Another, content with reputation already gained, fails to reach its usual standard.

California's exhibit is very disappointing, many schools not being represented at all. Some good work is shown, but not sufficient to give a correct idea of the extent of the work in this great state. Colorado makes by far the best showing of the Pacific states.

We have yet much to learn in the matter of school exhibits. To be of real value to the educator, the age and grade of the worker must be considered. These items are frequently omitted, especially in the displays of basketry.

An intense wave of interest in this brand of hand-work during the last few years has caused it to be introduced more generally than any other form of work, and in all grades from kindergarten to high school. The fact that the first attempts of the youngest workers compare very favorably with the first efforts of the older ones seems to indicate that this work is best suited to the lower grades. Los Angeles exhibits a fine collection of raffia baskets, from first- and second-grade children, in which the workmanship compares favorably with that of older pupils.

Outside of California and Colorado, manual training is yet in its infancy. Arizona, New Mexico, Montana, Oregon, Utah, and Idaho exhibit a little work, mostly of good quality. In nearly every case, however, it comes from one or two schools only. The prospect for the future is bright, and many new departments for hand-work will be opened this fall.

Prominent among the things we have failed to do is the lack of definite purpose and continuity in our course of study. The situation is an inevitable stage in the progress of a new idea which must be experimented upon. Like all new ideas, hand-work as an element in education has had a varied career. It has grown sometimes from the kindergarten up, sometimes from the high school down; with corresponding differences in application and methods. While the leaders in either case are able to prove their theories by results, the followers are apt to fall short of the mark, and much of our work is of the haphazard order.

Examples of the simplest forms of basketry are shown from every grade below the high school, while some quite difficult constructions in wood and cardboard have been

attempted even in the kindergarten. Removal from one town to another should not affect a child's hand-work any more than his arithmetic or geography.

The world is calling more and more insistently for men who can do something well. The criticism of our schools most frequently heard from parents is that we teach a little of many things and nothing thoroly; that the common schools do not fit one for practical life; and, because many have received the most practical part of their education outside the school house, an unhappy idea is gaining ground that higher education is a waste of time.

Closely related to the lack of definite purpose is the lack of close relationship between the hand-work and the head-work. The novelty of the idea together with the joy of creation is sufficient to hold the interest of the pupils, and good results are bound to follow. But without doubt these good results would be greatly increased if the teachers of both lines were not only in full sympathy, but were seeking thru definite plans and hearty co-operation to accomplish the same definite purpose.

At first workers in the new field felt too uncertain of themselves to stray far from the beaten track, lest by a misstep they lose ground to their opponents who were waiting to see the fad die. The necessity of a broader interpretation of the idea impressed itself upon many who have attempted to meet the need in various ways, and an artificial correlation has been effected by making apparatus for use in other lines, by illustrating the book lessons, by giving the pupil his head, as it were, and allowing him to work out his own idea. These plans work well enough under certain conditions, but may result in dismal failure. The thing desired is often beyond the pupil's ability, and poor workmanship results, or the process is long drawn out and interest is lost.

So long as manual training is regarded as a "special" subject—a sort of adjunct to the so-called *regular* work—any attempt at close correlation will be to some degree unsatisfactory. I believe the keynote has been struck by some of our recent writers in the suggestion that the hand-work be made the central thought in our course of study, and the head-work be such as grows naturally from it. If we begin with what the pupil can do and do well, we shall find no lack of interesting material growing from it to occupy his mind. I believe I would go one step farther and demand that, while we make hand-work the central feature in our plans, we shall not only choose projects which are in accord with the interests of the young workers, but the material used shall be so suited to their constructive ability that it will be possible for them to do good work from the beginning—such that we may say in commending, "It is good;" not, "It is good for a little boy."

In the days when more hand-work was done in the home each member of the family had his part to do, and felt the necessity of performing it well. The younger children did the simpler things, but their work must be as well done as the rest, and they early learned that what was done at all must be well done. I am inclined to the opinion that as much, if not more, lasting benefit will be received by the pupil who learns a few things thoroly, who can do a few things well, who has never learned to slight any work, as will come thru a broader horizon less perfectly understood. In the variety of materials at hand today it is certainly possible to find some work which can be well done even by kindergartners.

Among the problems we must solve, one of external and one of internal import are pressing upon us. From without comes the question of more general diffusion of the manual-training idea, especially in the smaller towns. In view of the rapid increase in the number of manual-training schools and their general popularity, this may not seem much of a problem, but its magnitude is easily appreciated if we compare the number of schools having a manual-training department with those having none.

Idaho reports: "Practically no manual training in this state outside a few government institutions." Nevada reports: "Nothing, except a very complete course in the State University."

There are vast sections in which, outside a few larger cities, practically nothing is known of our work. This seems true of East and West alike. Only a few weeks since, a

Helena mother called to watch her son at work. She said: "This sort of work is not common back east, is it? I wrote to some friends in"—I think the place was Chicago—"that Charles was going to sloyd and making such fine things, and they wrote back: 'Who is this *Mr. Sloyd* from whom Charles is learning so much?'"

Not only are many people not awake to the fact that manual training exists as a definite part of school work, but a vastly greater number have a very meager conception of its real meaning or value. One feature or another is emphasized in different minds, and it is variously regarded as a recreation hour; a sort of fancy work; a chance to learn something practical which may mean dollars and cents by and by; a time to make anything great or small suggested by the mama at home or the teacher at school; something to be done or left undone at the whim of the pupil or parent; one of the many extravagant experiments in which teachers love to indulge at the expense of the taxpayer. By an ever-increasing minority it is given its true place as an essential element in education. In the solution of this problem the normal school is a potent factor, and we should not consider our days of missionary work ended until every normal school shall not only require a course in manual training, but shall regard it as of the same importance as arithmetic or language.

If I have described the situation correctly, and our weak points are lack of definite purpose in our methods and close correlation with other elements in education, then our great effort should be to evolve a system which shall begin somewhere and end somewhere, and stand for something when completed; which shall have some vital connection with the rest of school work and with life outside of school. I use the word "system" advisedly; it has been much abused; but without systematic effort we shall accomplish little of real value.

It is not the province of this report to discuss methods, but a few suggestions may not be out of place.

Some of us believe, with good logic to support the belief, that by selecting certain fundamental principles which enter into every department of life, and presenting them in logical order one by one, allowing the pupil time to become master of each, we shall lay a foundation so firm and strong that he may build upon it any superstructure which his later interests may dictate.

Some of us believe, with equally strong arguments back of the belief, that we shall best succeed by helping the pupil to find himself; that, by directing his natural interests and stimulating his creative instinct, we shall find what is his bent and assist him to make the most of his powers.

I said these two extreme positions were backed by equally strong arguments. If this be true, shall we not find a safe walk midway between them? The monotonous similarity in the array of flower-sticks and plant-stands in numerous exhibits from Maine to California, together with frequent questions, such as, "Have I got to make a wedge?" "What shall I do with this when it is finished?" show the weak point in one plan.

Upon the definition of "interests" hangs the secret of the other. If by "child's interests" we mean the things which have most to do with his welfare now and in the near future, it is one thing. If we mean the things he likes or dislikes, it is quite another.

While we acknowledge the value of making the work interesting in the common acceptance of the term, we must admit that there is sometimes great gain to the worker who does an uninteresting thing well because it is right.

While we emphasize the value of developing the creative instinct, is it not well to remember that where one is born with the qualities of leadership, there are apt to be at least ten who will do well if they make good followers?

Is there not sometimes as great benefit to be derived by the pupil from attempting to follow the excellent example of his teacher as set forth in an accurate piece of work—call it model, if you will—as he receives from working out his own ideas in a crude way?

Is it not possible to build a course of study in manual training which shall cover a

most definite series of fundamental principles, which shall retain the best of the many good things comprehended in the term "sloyd," and at the same time be so flexible that it will allow full play for the creative powers of the ingenious boy, awaken and develop a true sense of art, hold in check the impulses of him whose interest is here today and there tomorrow, while it secures at least mechanical proficiency from him whose creative instincts lie too deep for expression?

IV. REPORT ON THE NEW YORK CITY EXHIBITION OF WORK IN DRAWING, CONSTRUCTION, AND DESIGN

CLARENCE A. MELENEY, ASSOCIATE CITY SUPERINTENDENT OF SCHOOLS, NEW YORK CITY

The exhibition comprises work in free-hand and illustrative drawing, in applied design, elementary construction work in raffia, cord, weaving, sewing, basketry, cardboard, and wood. The work of the first six years is done in the class-rooms by boys and girls, and the wood-work by boys in the school shops during the last two years. During the seventh and eighth years the girls have advanced sewing or cooking.

The manual work is under the direction of directors and deputies in the several subjects. Each deputy is assigned to a school district in which there are two hundred or more class teachers. The work in the class-rooms is done by the regular class teachers, and the cooking by special teachers.

The exhibition contains drawing, and construction work from all grades of the high and elementary day schools, from the evening schools and from the vacation schools.

The work exhibited will be found in cases containing swinging frames, and in portfolios, while the models in cardboard and wood are on the shelves. The wall cases are arranged to illustrate the eight-year course of study. The first frame in each case shows the printed course of study for the year, with a syllabus in detail; then follow photographs of children at work. There are thirty pages of selected specimens of class work, arranged in sequence of subjects. The first ten pages show drawings of familiar objects; the second ten pages show, for the lower grades, illustrative drawings, and for the higher grades drawings of plant forms. In each case the last ten leaves are covered with models illustrating the course in construction and applied design.

The work of the different boroughs of the city is not differentiated, all contributing specimens to each grade. The work shown is characteristic of that done under all the directors.

In the portfolios will be found illustrations of the course of study by subjects, one illustrating the work of the several years in plant-form drawing, another illustrative drawing, another design, and so forth. The index indicates the borough contributing the work. In the cases and upon the shelves will be found the constructive exercises. Most of the cardboard models are covered with cartridge paper or book linen, and decorated by water-colors. Scrapbooks made by pupils are also shown. Some of the wood-work represents the exercises done in the shops, and some in the class-rooms illustrating the co-ordination of the work in working drawings, construction, and design. Some are specimens of "communal" exercises made in the shops, by groups of pupils in the seventh and eighth grades, devised by the shop-teacher in consultation with the science teacher, and illustrating common mechanical powers, or machines, or illustrative apparatus to be used in connection with science lessons.

Other exhibits of the constructive work of the first three years are to be seen in frames on the walls and in a number of cases and portfolios. The work exemplifies the course of study and shows the development of the hand-work growing out of the kindergarten occupations.

In the manual work of the primary grades a carefully thought out sequence consisting

of models in cord and raffia is shown. The materials used are particularly adapted for making articles within the child's ability, for use in both home and school, and an opportunity is given to develop the creative faculty by the graded exercises. The child begins in the first year with the soft cord, learning to make a series of chains and knots. This work does not require too minute muscular adjustment, and teaches the children to be ambidextrous. In the second year the raffia work is taught, and the girls begin their sewing on canvas, with coarse needle and worsted. In the third year some basketry is taught the boys, weaving to both boys and girls, and the stitches are further developed in the girls' classes. When the fourth year is reached, the girls continue their sewing, learning to draft patterns, mend, and make garments.

The vacation schools afford a fine opportunity for the development and extension of this form of constructive work. The exercises lead to much that the children are able to apply unaided in the making of useful articles at home, and thus acquire the habit of industry and of self-entertainment. In the vacation schools and in the playgrounds groups of children are organized into classes and taught these exercises by one of their own number chosen as a leader. The cases and portfolios labeled "vacation schools" contain much of this work.

A set of decorated shop models is shown to illustrate the work of an entire class, each based upon a type model, but modified in design and in decoration according to the individual idea of the pupil. The articles to be made are determined by the shop-teacher, there being no prescribed models for all schools. This idea is carried out to permit of the largest liberty, and to satisfy the ideas of the community in which the school is located—the interest of the child being the incentive.

The decorated models represent the development of the theory which underlies the general course of study in the arts. The aim of this is stated in the introduction to the syllabus of the course to be "a development on the part of the pupil of individuality and originality in planning and execution, and of appreciation of what contributes to that desirable attribute—taste;" the arts being further taught that "through the expression of his deep-lying instincts to tell, to construct, and to decorate, the child may become conscious of his own powers and of their value, of his relation to his fellow, and to the world in which he lives. Things are planned and made in order that he may gain the constructive point of view."

Each pupil in the shops completes each term a number of simple utilitarian models for practice sake, and then constructs a form from his own working drawing and decorates it with a design devised by him for that particular purpose. The types of the models made vary in each of the workshops, and the individual pupil is also permitted to determine the proportions of his own model within due limitations. The decorated models shown, therefore, represent an actual and not theoretical co-ordination of work in sketching, mechanical drawing, constructive and applied design, in color and joinery. It should be noted in addition that, as the mechanical drawings are gotten out by the class-teacher in consultation with the shop-teacher and district supervisor, the theme enlists the co-operation of all three teachers to the desired end.

In the case of girl pupils of the upper grades a similar plan is adapted, the constructed forms being made in the class-room, of pasteboard covered with book linen, canvas, etc. And this principle is carefully observed in the sewing classes.

Thruout the course it is the effort to present the manual arts as a co-ordinate whole, and not as a series of unrelated studies. The different branches (drawing, construction, and design) are everywhere closely related to one another, while the exercises involving them are made to rise from the interests of the child and the necessities of the class-room and the general curriculum. It is also the aim to present the arts as an integral part of the general course, as an essential element that is in the curriculum. With this idea in view, the child is required to plan only those things which he is subsequently to make, and to design only those decorations which he is subsequently to apply. Each operation is

offered to him as one making toward an end which he understands and recognizes. The knowledge he gains is always knowledge for use.

This plan is developed from the earliest years, the manual work being offered to the little child, not as a special subject, but as a means of expression—as a means whereby he may gain the power to see accurately, to judge with discrimination, and to record the results of his judgment with ease and certainty.

Besides the emphasis upon the proper development of the work as a central element in the primary curriculum, much stress is placed upon the necessity for giving the child opportunity for personal initiative and original solution, and to gain a mastery of definite occupations that shall furnish him the means, the method, and the incentive to employ time to advantage. Stated in a word, the object may be said to be the development of the arts as an educational agent leading the pupil to think and do for himself.

V. REPORT ON THE EXHIBIT OF THE BRADLEY POLYTECHNIC INSTITUTE

CHARLES A. BENNETT, HEAD OF THE DEPARTMENT OF MANUAL ARTS, BRADLEY POLYTECHNIC INSTITUTE, PEORIA, ILL.

The exhibit of Bradley Polytechnic Institute is significant, first, because Bradley Institute itself is the embodiment of a new ideal that has been coming forward in educational thought during the past two decades; and, second, because the exhibit is wholly a Bradley Institute product, and therefore expresses the spirit and character of the school in a marked degree.

Bradley Polytechnic Institute, founded by Mrs. Lydia Bradley, includes two schools; the School of Arts and Sciences and the School of Horology. The School of Arts and Sciences has a six-year course covering the work of the academy, or high school, and the junior college, or freshman and sophomore years of college work. By thus uniting the first two years of the college with those of the academy, Bradley Institute has placed itself in harmony with the modern university system, as distinct from the older college system. It recognizes the fact that today the work of the junior college is more like that of the academy than it is like the work of the senior college. In other words, the break in the student's course, when it comes between the second and third college years, is less marked and more rational than when it comes between the fourth year of the high school and the first year of the college. It has other points of interest, but it is not my purpose to present them now. The fact I wish to point out is that, having adopted the six-year plan of organization, a very rich and unified curriculum becomes possible—a curriculum fitting students for the professional schools and the university, or preparing them for a life of usefulness in a variety of industries and occupations. With courses in the languages, literature, history and government, mathematics and the sciences, drawing, engineering shopwork, and domestic economy, Bradley Institute is especially favored in its facilities for helping a young man (or a young woman) to discover what he is best fitted for and to start him on the road to success.

Five groups of studies are open to a student: the sciences, engineering, classics, literature, and the mechanic arts. The latter has been changed recently to cover only four years instead of six, thus making it a technical course of secondary-school grade in which is found the maximum of drawing, shopwork, and applied science.

The School of Horology is a trade school for watchmakers, jewelers, engravers, and opticians. From this school men go directly into positions requiring a high degree of technical skill. On account of the completeness of its equipment, this school holds a unique position among schools of horology.

To make evident the character of the work done in each of the courses in these two

schools, the relation of the courses to each other, and to indicate the spirit in which the work is done, was the aim in preparing the exhibit of Bradley Institute now in the Education Building. Four different means were employed in the exhibit:

1. *Charts and maps.*—Two of these are of special significance—the colored chart of the curriculum of the School of Arts and Sciences, and the map showing the distribution of students who have attended the School of Horology.

2. *Wing-frame cabinets.*—In these may be found photographs of buildings, classrooms, laboratories, workshops, etc., and outlines of courses arranged by departments. Many of these outlines are illustrated by means of photographs, notebook pages, drawings, or samples of written work.

3. *Cases.*—These contain samples of students' work in mathematics, literature, language, history, biology, food work, sewing, art, manual training, jewelry, engraving, etc.

4. *A book of information.*—This gives a historical sketch and many details of organization and of courses.

These four means of exhibiting have been unified by an installation which is harmonious in design. Each case and piece of furniture composing the installation was designed and made at the Institute. The designing was done by members of the faculty of the department of manual arts, and most of the pieces were made by the superintendent of buildings assisted by an ex-student. A few were made by students in their regular classes. The photographs, including the enlargements, were made by both students and members of the faculty; likewise the charts and maps; while the glass-work in the screen is the work of a class of girls and was designed by one of their number. The metal letters of the sign on the rear wall are the work of a class of boys.

At this distance from the exhibit it is well-nigh impossible for me to give explanations that will be of any material benefit to the visitor. The exhibit must be seen to be understood. I shall therefore close my explanations at this point.

In closing, however, I may be pardoned for stating, from the standpoint of manual training, what I believe this exhibit offers in the way of suggestions:

1. Those who are studying the problem of manual training for a general high school, as distinct from a manual-training high school, will find here that work in the manual arts has become an integral part of a broad high-school curriculum, and that, in common with English, mathematics, and history, it is required of all students—of some much, of others little.

2. New laboratory courses in mathematics may be found here.

3. It offers suggestions to those who are looking for ways of making more vital the relationship between art and manual training.

4. It may encourage those who believe that in metal working there is a rich undeveloped field of manual training, especially for secondary schools.

To anyone who wishes to make a thoro study of the exhibit I advise that he begin with the chart of the curriculum, and then follow thru the wing-frame cabinets, beginning with No. 1. After this has been done, he should give some attention to the large cases and the book of information. He is sure to find many defects in the exhibits; he will often discover "what not to do;" but he may also get a few helpful suggestions. We hope he will discover what we believe to be a fact: that Bradley Institute has begun its career in harmony with that spirit of the times which seems fittingly expressed in the quotation from Ruskin which appears on the central cabinet in the exhibit:

> Life without labor is guilt;
> Labor without art is brutality.

MANUAL-TRAINING HIGH SCHOOLS OR MANUAL TRAINING IN HIGH SCHOOLS

CHARLES B. GILBERT, NEW YORK CITY

Postulate: The segregation of manual training in separate high schools means giving the fullest enjoyment of its advantages to the minority who elect to attend these schools, and entirely deprives all other secondary students of all manual-training instruction.

The proper answer to the question of the title, then, involves much more than appears upon the surface. At least three fundamental educational questions must be answered first. They are:

1. What is the purpose of manual training in secondary schools? Is it exclusively educational, exclusively occupational, or has it a dual purpose?

2. What is the function of the state with regard to industrial or occupational training?

3. What time, if any, should be set by school authorities when students must select their future occupations, and thereafter receive definite training for them, or be deprived of certain important educational advantages?

Of course, I shall not attempt to answer these three great questions in full, but I hope to show their bearing upon the question at hand, and to show that our answer to that will depend upon the views we take of the other three questions; because, if the purpose of teaching manual training in secondary schools is purely educational, it stands to reason that it should be a co-ordinate part of the curriculum of all secondary schools where it appears at all. If it is purely occupational or industrial, then when the time has arrived in the course of education for the choice of an occupation and for directing all energies toward that, at that time manual training should cease to be a part of the general curriculum and should be given only to those who desire to make use of it for occupational ends.

If the time for this choice is the end of the elementary-school course and the beginning of the secondary course, the question is settled at once. Separate manual-training high schools should be maintained instead of manual-training courses in other high schools; that is, whenever economic conditions render it possible.

If it has both an educational and an occupational purpose, then provision should be made for meeting both these ends.

Is it one of the offices of the state definitely to equip by technical training young people for their chosen callings? If not, and if the purpose of teaching manual training in secondary schools is not educational, but occupational, then there should be no manual training taught after the elementary school. If it is the function of the state, on the other hand, to teach trades, and if the time to begin is the end of the elementary course, and if the purpose of teaching manual training is to lead to these trades, then, of course,

there should be separate schools for the subject, and their courses should be sufficiently enlarged to include practically all remunerative trades.

Does this seem like an impossible discussion of the question? It is simply putting the case fairly, because the teaching of manual training is for educational or occupational ends, or both. If the first or the third, it stands to reason that it should not be segregated and placed so that the majority of students cannot take it. If the second, then it should be so segregated.

Now, to answer these questions, is the purpose of teaching manual training educational or occupational? In the elementary grades, educational without doubt. If it is educational up to the end of the grammar-school course, on what principle does it cease to be educational and become purely occupational at the beginning of the high school? Is it not, indeed, one of those very subjects which especially appeal to the adolescent, bringing into his horizon that sense of reality from the lack of which he is apt to suffer at that time in the ordinary school course? This is not saying it may not also be occupational.

Surely no one can reasonably claim that if it is a desirable subject for educational ends up to the age of fourteen, it ceases at that point to be a desirable subject. That being the case, why should the great majority of high-school pupils who have pursued it with interest up to that point then be deprived of it. For it follows necessarily that if it is segregated and taught only in a single school, even in a large city like New York, only a very small minority of the high-school students can have any of it, and whatever educational value there is in it is consequently lost to the majority.

Second, at what time does it become absolutely necessary for the youth to select his calling, under penalty of being deprived of valuable educational opportunities if he does not so choose? The answer is easy. There is no such time for all or a majority. It is purely an individual question. Some must leave to go to work at a calling chosen or thrust upon them as soon as compulsory-attendance laws allow, or sooner, if they can evade the officers. Others must go to work at something definite for a livelihood after leaving the grammar-school course. In fact, the vast majority of boys and girls leave before reaching the high school, as we all know. Some, a saving minority, are allowed by good fortune and their parents to pursue their education farther and go thru the high school, and a rapidly decreasing minority thru the college and university. And very many go even thru these last without having decided what definite line of work they will pursue in life. They are gathering knowledge to use and accumulating power.

Now, shall the state step in at any point and say to those fortunate youth: "You must give over some elements at least of the general culture which you are enjoying, unless you decide now what calling you want to pursue?" Clearly, it is not a function of the state to determine the age at which the youth shall either go to work for a living or decide what he will do for a living. If that is true, then on what ground can a subject which has proved to be of great educational value thru the elementary course be taken away from him at this point unless he chooses a calling?

Third, is it a proper function of the state to give exclusively occupational training at all? That is a question that I am not prepared to answer definitely *pro* or *con*. If I should say this is the function of the state, I should be accused at once of rank socialism; but if I were to call attention to the law schools, medical schools, dental schools, and agricultural schools, sustained in practically all of our western states at public expense, tho most of them of university grade, I should prove that I have good company at least in my socialism.

Indeed, if the function of education by the state is to make better citizens, and the ability to earn a good living and the wise choice of an occupation are fundamental to good citizenship, it is difficult to formulate a telling argument against occupational training at public expense. But suppose we make a concession in this direction—we surely do not place ourselves in the class of those who would give only occupational training and who would deprive those not choosing an occupation of some important element of culture.

Consequently, if manual training is an important element of culture—so important that it is worth the state's while to pay cost and to put it into all the elementary schools; and if it is also an especially valuable training for the students during the adolescent period, ought not the facilities for its pursuit to be placed within the reach of all secondary-school students, even if we also grant special facilities to those who choose some occupation to which manual training leads, and who want to continue in school, and if we regard it as the office of the state to furnish this occupational training?

Is not my point clear? It may be well to have special manual-training schools. It is certainly well to have thoro manual-training instruction thru the secondary school for all who wish to pursue this with a view to using it in the work of life, but the arrangements made to meet the needs of such should not ignore the larger class of those who would pursue the subject for its cultural value. While manual training should be offered to the fullest extent to those students who want to pursue it thoroly and broadly, should it not also be offered in more limited courses to those who want to give a shorter portion of time to it? Should not those boys and girls who have had an hour, or two hours, or three hours a week thruout the elementary school for this work be allowed to devote an hour, or two hours, or three hours a week during the secondary school to the same work?

One of the chief arguments in favor of the adoption of manual training in elementary schools is that it furnishes a new medium of expression, because it is so readily correlated with the other subjects, especially the mathematical and scientific. Does this cease to be true in the high school?

Another strong argument generally employed for manual training in the elementary schools is its democratic influence, its tendency to create sympathies between those who toil with their hands and those who do not; to dignify manual labor. Does this value cease when that most important of all developmental periods—the adolescent—comes in? Can anyone advance any good proof that a single educational advantage which is admitted to belong to

this subject during the elementary-school period ceases to belong to it for the secondary period?

My position, then, is that the opportunity to pursue manual training as a cultural study should be offered to all secondary students; that a further opportunity to pursue it as an occupational subject should be offered to those who have determined at as early a time as that of entering the secondary school that they want to make this use of it.

It is evident that this can be better done in the ordinary high-school building than in a special school; and of this arrangement I will speak in a moment. There is one special objection to the separate manual-training school of which I will speak here, and whose force I recognize, altho I may advocate special schools in certain cases. That is, the tendency of all such institutions is to place the emphasis upon the mechanical, at the expense of the intellectual, features of the curriculum. It may be said that the special manual-training school is not necessarily vocational, but the very fact that it is a special school almost of necessity makes it such. The specialists who are doing the teaching, from force of habit and from uncontrollable psychological causes will put the stress of their work upon those features which are specifically manual and will make it an occupational school. I state this practically *a priori*. An observation of schools generally also will confirm it.

The manual training school needs a corrective. It needs the contact with students and teachers who are more concerned with other phases of education than this in order to keep it sane and sound and wholesome, unless we want it to run into the trade school pure and simple; and surely no one here wants that.

There are economic conditions also that of necessity will affect the answer to this question in most cities. These conditions will vary according to circumstances, chiefly, perhaps, according to the size of the city. A manual-training school run independently is, on the face of it, a very expensive school. A full corps of teachers for all the subjects—mathematics, languages, sciences, and the rest—must be maintained and a full corps of shop instructors; and unless the school is a large one so that the classes can be kept full, which is not the case in the smaller cities, the expense is very great. In very large cities, of which there are but a few, it may be that there will be students enough wanting to make manual training the major course of their secondary-school work to justify this expense.

New York, Chicago, and Philadelphia, and possibly Boston, St. Louis, and San Francisco, with perhaps two or three other cities in the country could maintain manual-training schools in which the cost per capita would not be very much greater than in the ordinary high school. The cities of a lower grade—from 150,000 population, say, to 300,000—can do this with difficulty by shaving salaries and by paring down expenses; but even then the expense will be somewhat larger than for ordinary schools. But when a smaller class of cities is reached, especially those below 100,000, it will be found

that the per capita cost of students in special manual-training schools is so great as to be practically prohibitive of such schools.

But, to my mind, stronger than all economic arguments for manual training in the ordinary secondary school is the need of the ordinary secondary-school student for some of it. There is no reason why a good high school, teaching all the subjects, should not have a complete manual-training equipment as a part of its plant. In my judgment, every good high school should have such an attachment, and should offer to students who want to pursue manual training fully just as complete courses in it as can be offered in the very best separate manual-training school; and also to those students who do not desire to make manual training the major subject, limited courses of one or two hours a week, continuing the interest started in the grammar school, amplifying and illustrating the other subjects of the curriculum, especially mathematics and the sciences, enlarging the views of life, and furnishing a certain amount of valuable manual dexterity without materially increasing the cost of their instruction or of the manual-training work. Moreover, the students who are taking the special manual-training courses can have the beneficial influence of the very best teachers in all the other subjects, and of contact in class with those students who are making specialties of Latin, Greek, modern languages, history, literature, mathematics, sciences, and what not.

This mingling of those who are taking different courses in one school is of advantage to both. There is a little danger of class feeling between manual-training high schools and other high schools. The students in the classical high schools are apt to look down a little upon the students who are taking manual-training courses, and the students of the manual-training schools are apt to have a rather uncomfortable, antagonistic feeling toward the mere "book" students, as they deem the others.

It is sometimes said that teachers in the regular high schools are not in sympathy with manual training, and that it will not have a fair chance if made a part of the regular school. There is no stronger argument for such a union. If teachers are narrow enough to undervalue this great subject, they need the broadening influence which comes from contact with it. If it is all that we claim for it it will stand for itself, and if put into a good high school as a regular course, with a complete and extensive equipment, with a full corps of special teachers, and with large classes taking it with enthusiasm, no one need be found to stand as its defender.

Experience running over a good many years has shown me how popular such courses as may be allowed in manual-training schools can be made with those students who are not specialists. I think it is unfortunate to have the large number of students entering the high school specialize early. I confess to the old-fashioned belief in old-fashioned culture, enriched and enlarged by new-fashioned studies, among which stands manual training. If it is so good a thing, do not hedge it off by itself and limit it to the few; let all have it. Keep it where the many can see it, and come to value it, and can take advan-

tage of its courses to the fullest. So I would have all high schools, as I have said, with full manual-training equipment, which should be considered as essential a part of their plants as are the laboratories and the class-rooms. I would have courses such as would appeal to both boys and girls, and have them open to all—major courses for those who desire to differentiate their work at this point, and minor courses for those who need them. I would bring all the boys and girls into the same environment and under the same general influence, and treat manual training thru the high school as at least educational and for all, and, in addition to this, occupational for those who wish so to make it.

DISCUSSION

PROFESSOR C. M. WOODWARD, director of Manual Training School, Washington University, St. Louis, Mo.—There seems to be substantial agreement between Mr. Gilbert and myself as to the ends to be secured in organizing manual training in secondary schools. We agree that *some* manual training should enter into the secondary curriculum of every boy (and girl), not for occupational, but for educational ends. Neither of us approves of trade-teaching in public secondary schools. Both of us wish to postpone the choice of a course of study with a definite view to an occupation until after the first year of the high school. Perhaps we agree in postponing it still longer. Both of us are unwilling to deny to any pupil a reasonable demand for a thoro course of manual training. If Mr. Gilbert had had my experience in contact with classical and manual schools, he would probably agree with my *a posteriori* conclusions as to segregation.

I do not approve of so much talk about occupational training in any high school. Everything studied has, or should have, value in the occupations of life. Everything taught should be taught thoroly, as tho the welfare of every pupil in the class depended upon the teaching and the learning being done well. It is worse than poison to lead a boy to feel that what he is studying will be of no value to him in after-life; that it is "mere culture." I regard it as extremely unfortunate for a fourteen-year-old boy to be allowed to say to his teachers: "I am going to be a lawyer, or an electrician, or an engraver, or a grocer, or a journalist, or a machinist, or a gentleman of leisure; and hence I don't wish to study this or that or the other, because such study will be of no use to me." I have no objection to a boy's fancies. He must have them, but they should not be taken seriously.

One day I was showing a visitor the St. Louis Manual Training School, and we came upon a class reading Cæsar. "What in the world are these boys studying Latin for?" the visitor asked in amazement. "What did you study Latin for?" I asked in turn. "I am a bachelor of arts," was all he felt it necessary to reply. "Perhaps these boys will be bachelors of arts sometime," I added. "Then what are they in a manual-training school for?" Of course, he could not understand. There are many such people still living—they cannot understand; but Mr. Gilbert and I understand, and we are sanguine that all will understand in due time.

There is one point where Mr. Gilbert and I differ: He thinks it a good thing to have a boy who, after a fair trial with a branch of study, has been allowed to omit it by a proper choice of a course of study, to be in daily contact with another boy whose taste has led to an opposite choice. One takes Greek, the other descriptive geometry; or one elects ancient history, and the other mechanic arts. Do they stimulate each other, or do they have a tendency to unsettle and upset each other? I think it best for such students to study apart with all the zeal they can.

I do not approve of the way in which Mr. Gilbert uses the words "majority" and

"minority." He assumes that if we have manual-training high schools and literary high schools, the former should receive only a minority and the latter a majority. In fact, he assumes only one manual-training high school in a large city like New York. Why should we not have as many manual-training schools as will meet the demand? When one school is full to the limit, build another, and so let everyone have his wish at a time when that wish means something.

It goes without saying that this discussion can apply only to communities where at least two high schools are necessary—say, to centers having 25,000 or more people. A population of 25,000 should have a high-school attendance of 1,000, which is enough for two schools—250 boys and 250 girls in each school.

Again, I do not assume that the organization of a manual-training high school would involve the exclusion of all manual training from the other high schools, as until recently was the case in Boston and elsewhere.

Contrasted with the Boston plan is the Chicago plan, which offers, or plans to offer, a year's work in manual training in every high school, and at the end of a year transfers to the manual-training high schools those who wish to take a full course of manual training, and transfers to a classical or a commercial school, those who do not wish to continue manual training. I approve the Chicago plan, and I heartily commend it to all cities; first, because every high-school pupil should have a chance to develop his executive, mechanical abilities, no matter what his outlook for occupation may be; secondly because it pushes ahead for one year more the date of a final choice of a course of study.

I base my position on several reasons:

1. The expense of complete equipments. Bench-work in wood is inexpensive, but lathes and motors and all the metal-working tools and appliances are expensive, and when the probable demand of high-school pupils is met, it is wasteful to provide more. If instead of one or more complete outfits partial ones are provided, the scheme is inadequate. At least half our boys want manual training, and if we are to keep them in school, we must give it to them. Abundant experience proves that manual-training high schools hold boys who would otherwise drop out,

2. The weekly program for a manual-training school cannot be made to fit, or co-operate advantageously with, the program of a classical school. The manual contingent of classes have double periods in the shop—and they should go with full ranks, or there will be lack of economy in teachers; hence they cannot combine with other students in academic studies. Again, they study different subjects, and they generally take the studies they have in common a different number of times per week. When both drawing and shopwork are required of every pupil, the boy recites three academic lessons daily, and his mathematics, science, and foreign language or history come four times each per week; his English, three times a week for four years. The classical pupil generally has four recitations daily, and each five times a week.

A class in Latin or history may range from ten to forty pupils. A shop class under one teacher should never exceed twenty-four, and when a tool laboratory is fitted for twenty-four boys, the twenty-fifth boy drifts idly about without bench, lathe or anvil, and feels as forlorn as does the man who boards a sleeper at midnight and finds all the berths occupied. Hence the few shop boys out of a large classical section are generally sent to shop by themselves. Whenever I visit the shops of a manual-training high school, I find every place occupied and the teacher's services fully utilized; while in the high school in which manual training is optional, I generally find the shop divisions small and the teacher's time partly wasted. No two musical notes were ever more discordant than the weekly program of a classical and of a regular manual-training school.

3. In every school which is well conducted there is systematic correlation between different subjects and co-operation between different teachers, so that one branch of study is made to illustrate another branch. For example: All the processes of our forging shop, our brazing and soldering shops, are used to illustrate the principles of physics

and chemistry. Our geometry, plane and solid, gets uncounted illustrations and applications from "projection," "intersection," and "shadow" drawing. The exercises of the machine shop serve to illustrate the principles of friction, moments, the development of heat, electricity, the action of steam, compressed air, etc. All these illustrations would fall flat and weak upon the ears and eyes of pupils studying Greek instead of shopwork and drawing.

On the other hand, before a class of manual boys whose acquaintance with the traditional fields of study is of necessity limited, all reference to mythology, Greek and Roman history, classical biography, and the writings of Homer, Virgil, and Cicero, generally lacks force and application. I recall a scholarly and venerable teacher of ethics and political economy who always found engineering students "woefully ignorant of matters which every well-educated person ought to know." Had he gone into their technical lectures and into their engineering laboratories, and been put on the rack himself, he in turn would have been found "woefully ignorant of matters which every well-educated person ought to know." When manual and classical students mix in classes, profitable correlation is well-nigh impossible.

4. There is a fourth reason why it is not wise to combine closely into one program, with joint exercises in common studies, students like those in a literary school and in a manual-training school. There is in the two schools a difference of atmosphere, of educational tone, noticeable to every careful observer. In the one school the larger proportion of studies are rcognized as lying at the very base of future success in business, in industrial work, or in professional life. To the pupils of that school such studies are serious matters, and in the consciousness of their own zeal they look with disapproval, if not with contempt, upon one who confesses that he has no interest in such work beyond passing his final examinations.

On the other hand, the pupil who is giving his attention to subjects remote from the present time and from modern industrial interests is prone to pity, if not despise, the boy who is compelled by taste or by circumstances to devote himself to what he calls "bread-and-butter" subjects. Thus, when brought into intimate relations, instead of inspiring each other to greater zeal, the effect on each side is to lead to suspicions that the books one is reading and the work one is doing are, after all, of little or no importance. Such a result is unfortunate in every way. I do not say that all boys feel as I have said, but many do, and they give direction to public opinion. The ideal of one school is "culture," which, as Emerson says, is valued, not for what it enables one to accomplish, but for what it is supposed to accomplish in the student himself. The ideal of the other school is practical ability—the power to take hold and do things, useful and remunerative; to control forces, and to gain a mastery over materials. Let me add, in parenthesis, that this mastery of materials and natural forces is not gained without a great and precious accomplishment in the student himself. There is more than one avenue to culture.

Every teacher who has had charge of both kinds of schools recognizes and respects this difference in tone and atmosphere, and he prefers not to mix the two kinds of pupils in his classes. For seven years I was principal or assistant principal of a classical academy; and for twenty-five years I have had charge of a manual-training school; and I know whereof I speak.

I am not alone in the belief that it is to the interest of both kinds of schools that they be maintained apart. Look the country thru, and you will find school managers who have studied the matter agreeing with me in nearly every instance.

Dr. William T. Harris, United States Commissioner of Education, says:

> What we want is the manual-training school side by side with the high school as an independent institution.

This was said ten years ago, and Dr. Harris wrote me recently that he had seen no reason to change his mind.

President David S. Jordan, of the Leland Stanford University, writes:

I have always recognized the value of manual-training high schools in which a good secondary education is given in connection with manual training. Such schools rise above the level of mere trade schools, and through their breadth of view, accompanied by practical drill, are doing a good work in America. We need more of them. Those interested in better education would not have such institutions take the place of the classical high schools. They would rather see them develop side by side, and each should be equally open to all who can make use of their work.

President Eliot, of Harvard, says:

Manual-training schools ought to become habitual parts of the American school system. Such schools are more expensive than schools which do not require mechanical apparatus and the service of good mechanics as instructors, but they will repay promptly their cost.

From the *Report on American Industrial Education*, written by the late Professor John B. Johnson, I quote:

Your committee are in substantial accord in their belief in, and in their support of, the manual-training school as now organized and operated. They would like to see them multiply.

Dr. Belfield, the director of the Chicago Manual Training School, now one of the deans of the School of Education connected with the University of Chicago, is a man of great experience and good judgment. When consulted upon the question of consolidating or maintaining separately a classical academy and a manual-training school, he replies:

By all means keep the schools separate and independent. Preserve your rigid required course of study; preserve your traditions; and preserve your name.

Superintendent Thomas M. Balliet, in his paper on "European Schools," written several years ago, said:

There will be at least three types of high schools in the future, and they are now indeed in process of development: the literary high school, the manual-training high school, and the commercial high school.

This conclusion has evidently been strengthened by several years' experience in connection with the high schools of Springfield, Mass. He writes me this spring as follows:

My convictions are becoming more pronounced the more I study the problem, and are strongly in favor of keeping the two kinds of schools separate. Perhaps my convictions are stronger than the facts may warrant. I have the feeling that it is virtually impossible to get a man as *principal* of a *high school* who is heartily and intelligently in sympathy with the *classical department* and *also* with the *manual-training department*. Where schools are combined it almost invariably happens that a classical man is made principal who has not a full appreciation of the meaning and possibilities of the manual-training department. . . . . I believe that it is best to keep separate purely literary high schools and manual-training high schools, and put at the head of each a man who is strong in the lines of work which the school is to do. I hope sincerely that before long we shall have a shop, at least for wood-work, and possibly some elementary iron-work, in every literary high school, so that each pupil may get the benefit of hand-training in connection with his academic work. But a literary high school with a shop is not the same kind of a school as a manual-training high school where all the academic work is co-ordinated with the shopwork, and where the shopwork is carried on much more extensively than is possible in a literary high school.

I doubt also whether there is any economy in combining manual training and classical high schools, except in small communities. I know of no member of the Springfield school board or of the high-school commission who advocates the uniting of the two schools under one management.

It is interesting to note that in Cambridge, Mass., where the population calls for three high schools, and where the presence of Harvard University naturally stimulates both courage and caution, Professor's Balliet prediction of three kinds of high schools is exactly realized. After experiencing for several years the peculiar conditions of optional manual-training courses in a literary high school, the Cambridge committee unanimously agreed upon three high schools for a total of 1,200 pupils, viz.: a Latin school, a commercial school, and a manual-training school. That plan I indorse; but I would have the first year's work in them all identical.

Charles B. Gilbert.—It is impossible for me to answer all of the points in Dr. Woodward's able and interesting discussion with which I do not agree. His point of view is so radically different from mine that our differences of opinion are fundamental, and there is no common ground on which we could come together.

The basis of Dr. Woodward's argument is the division of society into fixed classes,

for which preparation must begin in infancy, before the youth are able on rational grounds to select their own lines of activity and their own fields of operation.

It is quite likely that there are arguments in favor of the manual-training high school stronger than the arguments against it which I have advanced, but they are not those advanced by Dr. Woodward, from my point of view. Indeed, the question, as a practical one, is almost wholly local. It is unwise to go against traditions and conditions which prevail in any city for the sake of carrying out a pure theory. I know manual-training high schools that are so important factors in the school situation that their distribution would be a local calamity. But my argument was based wholly on the consideration of new conditions, where there are no perjudices and no investments to help determine action.

Now, what is the substance of Dr. Woodward's objections to manual training in high schools? That students will not be sufficiently well grounded in manual training for class purposes. His argument is for an aristocratic society wholly; mine is for a democratic society. I would have manual training taught because of its cultural value for all, and because it is likely to help a very large number to the choice of a livelihood; and not because it sets apart some for a calling already predetermined.

Dr. Woodward's argument proves too much. One of his objections to manual training in high schools, for instance, is that students taught in the same classes from different courses cannot understand the illustrations of the teacher if they are based upon manual training. Think of it. Even at this period of infancy the line is to be so sharply drawn that the students in the classical course cannot even understand allusions to manual training made by a teacher in a class in English. That out-Germanys Germany, and I maintain that it is wholly undemocratic and dangerous. One of the strong arguments, as I have said, for manual training in high schools is that it brings the young people of all classes together and makes possible better citizenship. Young people who are together for four years, reciting every day together in the same classes, even if they are to a degree differentiated, are more likely to understand one another and to get along together in the world better than those who are separated at the beginning of the high-school course. I myself do not believe that the manual training will suffer one whit. I am confident that with an adequate equipment it can be carried on just as thoroly and just as well as a department in the high school as in a separate manual-training school; but even if it could not, I should still be in favor of manual training in high schools because of higher grounds. If necessary, I should say less manual training and more democracy. The school life is more important than any subject, even a specialized one, and the school life in our secondary schools must fit our citizens for the larger life of the world.

Finally and for all, I shall as long as I live be unalterably opposed to any school arrangement which tends to divide our future citizens into classes at this early age.

WHAT MAY BE DONE FOR MANUAL TRAINING IN COUNTRY SCHOOLS?

ALFRED BAYLISS, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, SPRINGFIELD, ILL.

For the purpose of this discussion it may be conceded that regular and accurate work with carpenter's tools—the lathe, forge, hammer, and anvil—is an instrumentality second only to the book in school education, and that study of natural objects and well-directed experimentation in the growth of plants are agencies of quite equal rank. Manual training and nature study are

co-ordinates, and as used in elementary-school training one can hardly think of either to the exclusion of the other.

The question "What may be done in the country schools?" altho affecting nearly one-half the school enrollment, does not involve the merits of the constructive or nature-study ideas, and may be answered briefly as well as somewhat categorically.

It is a question of conditions. The country schools are out in the country, where the best schools might be, and where the weakest schools are. They are generally poorly housed and indifferently equipped. As a rule, there is but one room. Even a cloak-room, or entry, is an exceptional luxury. There are no closets, bookshelves, pictures, nor any too much of the conventional "apparatus." The terms are short. The teachers are the younger and less prepared, or the older and less progressive; tho this rule has its exceptions. In the country district the inertia of old ideas is not easy to overcome. Nature study in the country school often dates from some Arbor Day, and the case of the little girl up in Michigan, whose father took her out of school because he found the teacher raking the yard and planting some trees, is, essentially, not isolated. The average country school-teacher has not tact enough to install a manual-training outfit and maintain his hold on the neighborhood.

Then there is the apparent disadvantage in the composition and organization of the country school. It is eight grades in one. The roll contains from five or six to fifty or sixty names—sometimes more, and occasionally not so many. The children vary in age from five to twenty years. The small school is given to the young cousin, sister, or aunt of the boss director, and ignored or neglected by the community. The large school generally falls into the hands of an old-timer who has done so much time in the business that he has become unable to "find time for the fads."

And, again, there are real difficulties. Image, if you can, the very best-arranged country school you know. Now, where are you going to locate your shop? Where will you store the wood, and the raffia, and the clay, and the tool chest? This is a problem in school management even to one who can see clearly how to employ all the ungraded children at once.

Less, therefore, must in equity be expected of the country school. But, in exceptional cases, something may be done.

A young woman, teaching in the country, for the excellent reason that she had been crowded out of town, in the course of two school years, both short, contrived somehow to have the boys fit up quite a workshop in an unused stall of a near-by stable. There was nothing said about the "introduction of manual training," or the project might have failed. They wanted to make a sled "for the boys to draw the girls on," so in the beginning it was merely part of their play. The tools and lumber were brought from the homes, and after the sled followed some shelves for books; whereupon it occurred to the head boy one noon that a cabinet, with a glass door, for their

"specimens" would be about the right thing. Nature study had not been "introduced." The directors would hardly stand for that. But some of the geography class had gathered a few fossils from a quarry and some different kinds of wood that grew along the river, and one of the boys had caught a pretty good-sized gar-pike, and, "just to see if they could get replies," they had written letters to schools in other parts of the country mentioning their stock in trade; exchanges had accumulated and were still coming. So they needed a cabinet, and, without a thought of manual training, set to and made it. There were some pictures. They would look better in frames; so they framed them. They wanted to see how long it took different seeds to germinate and grow up and get ripe; so they experimented with them. Nothing was said about a school garden; nor was it expected that there would be anything to sell; but the proceeds bought a book. The flowers were planted just to make the yard look prettier. Something had been said about "watering with a rake," which somebody did not believe, so they proved up on it.

Thus manual training and nature study broke into one country school. How both disappeared and were not when that teacher got married is another story.

There were 2,500,000,000 bushels of corn raised in the United States in 1902. This, however, did not wholly stop corn production in the corn states. Over there in the Agricultural Building you may see two great pyramids—one white, the other yellow—built of carefully selected samples of last year's crop in Illinois. They are built of the seventeen hundred prize packages of ten ears each, selected by competent judges from eight thousand similar packages, offered by competitors in every Illinois county, save one. If you have a winning way and can keep a secret, the custodian may possibly show you the first-prize package. To the novice in corn it is not so much unlike all the rest, but the young owner, I am told, has been offered ten dollars an ear for it by the largest corn-grower in South America, whoever that may be. The first premium is merely a polled Angus calf, warranted to bring five hundred dollars in the market if the recipient does not care to keep him. The lowest is half a dollar, and the gradation is fair, a ninety-dollar wagon and the governor's check for fifty dollars being in the list somewhere. This much manual training got into the country schools of one state by the effort of one man who wanted something to bring to the Fair, and is, of course, a mere incident.

The secretary of the State Farmers' Institute offered as many kernels of choice seed corn as could be carried for two cents to any boy who would send his address and inclose the stamp. Four thousand five hundred and ninety boys responded. The manager of the extension bureau of the college of Agriculture got word to the boys that he would supply a fine blank for a "report" to all who would ask for it. Two thousand eight hundred and sixty-two boys sent for the blank, and eleven hundred and twenty actually reported to him. Much of the corn raised from this seed was exhibited at the county institutes, and in some cases instructive lessons in corn-judging were given with the samples thus provided as a basis. This year five thousand

five hundred packages of seed corn have been distributed, each package accompanied by a little memorandum book, containing suggestions for a report, scale of points, rules to be used in judging corn, measurements of standard ears of different varieties and for different sections of the state, and a blank memorandum of the conditions and various steps in the experiment. The boys of some counties are working independently and on a little larger scale, supplementing the Institute supplies from their own resources. In Winnebago, Lasalle, Menard, and other counties there are organized boys' clubs, working under the guidance of the county superintendents, and carrying on various lines of farm and garden work. You heard something of the Winnebago county way Wednesday morning.

One county superintendent, who wishes to conceal his identity, has rented six acres. He pays the rent, plows the ground, and gets it ready for the crops. The boys plant, hoe, rake, weed, harvest, and market the products. Each boy gets half the proceeds of his own work. Forty boys enlisted, fifteen quit before they began, and two sold out early in the season. I am not going to defend the commercial features of this vacation school. There is not time today. For that matter, no defense is necessary. Said Emerson:

> Is it possible that I, who get indefinite quantities of sugar, hominy, cotton, buckets, crockery ware, and letter paper by simply signing my name to a cheque in favor of John Smith & Company, traders, get the fair share of exercise to my faculties by that act which nature intended for me in making all these far-fetched matters important to my comfort? It is Smith himself and his carriers, and dealers, and manufacturers; it is the sailor, the hidedrogher, the butcher, the negro, the hunter, and the planter who have intercepted the sugar of the sugar and the cotton of the cotton. They have got the education, I only the commodity.

Those lads in Coles county will get both education and commodity, and if the superintendent comes out whole, it is all right that way.

Here are some photographs which answer the question under consideration as to one country school. The first shows the house and the school—forty-six children and one teacher. The next is an interior view of the same school. The third is a close view of one end of the schoolroom. In less time than one can count four it may be seen that there are books, pictures, plants, and cabinets of specimens from each of the three great "kingdoms of nature" in some variety. The fourth is a picture of some of the manual products. The next two views are subterranean. One shows part of the working outfit, and the other the "department" of domestic arts. These two pictures are absolutely unique, and cannot, I venture to say, be matched in this exposition. The last is the garden—"four rails square"—looking pretty rank in the picture, but it, too, has been the fruitful source of education, commodity, and cash. This odd one, like Rip Van Winkle's next drink, we need not count. I throw it in for the evidence it seems to contain that they do not work at the bench or in the garden all the time. It may fairly be inferred from it that they sing, draw maps, and even learn to write. That rather fetching primary chart, too, is home-made.

I have indicated the limitations of the country school as it now is, referred to some outside agencies which seem to be co-operating with the authorized teaching forces, and shown by the pictures what is done in one, and may be done in many such schools.

Much more than has thus been indicated cannot be done until the country schools are consolidated and graded. That is coming in due time, and just as we now see country people sending their children to town, we shall see some city people sending their children to the country to board and go to school. In the good time coming, the advantages of clean air, elbow-room, trees, wild flowers, babbling brooks, and other country agencies and elements of bodily and spiritual freedom, not the least of which will be the new country school, will be seen so clearly that they will be given to the greatest possible number, and desired for *all* the children.

PROGRESS OF THE SOUTH, AS SHOWN BY EXHIBITS

BROWN AYRES, DEAN OF THE ACADEMIC COLLEGE, TULANE UNIVERSITY, NEW ORLEANS, LA.

The educational progress of the South is hardly to be judged from the exhibits shown by the few states represented. Several of the southern states are conspicuous by their absence from the Palace of Education, and those present there have, as a rule, only a partial exhibit of their schools and higher institutions. This is greatly to be regretted, but it is a fact. It should not be concluded, however, that the incomplete showing indicates a lack of substantial advance and a good degree of development along most of the lines which are being followed in other sections.

It is pertinent to ask why a special study should be made of the showing of the South as a section to be judged by itself, rather than to include its showing for whatever it is worth in a general examination of the exhibits of the whole country. I ask this question advisedly to emphasize the fact that we have become accustomed to look upon the South as a section by itself, having problems and difficulties that exist to only a limited extent, if at all, in other portions of our common country. The presence of two races to be educated, with only one race to bear the burden of the education of both, makes a difficulty which does not exist to the same extent elsewhere. The greater proportion of rural population in the southern states must also be taken into account in any fair estimate of relative advance. And yet, with these facts allowed, I wish to say as a southern man that the South does not wish to have established for it a standard in any sense lower than that which obtains or is to obtain for the rest of the country. There is no sufficient difference between the peoples of different sections of the Union to make it desirable to judge them by different standards in any of their activities, except such differ-

ences as are inseparably connected with the physical character of their environment. I should prefer, therefore, to present to you today in this brief study of the progress of the South in the teaching of manual training a simple statement of facts, begging that you will, for our own sakes, judge them by an absolute, rather than a lowered, standard. I have become heartily tired of a tendency which undoubtedly exists, to speak with a certain satisfaction of an institution, a course of study, or an equipment for any kind of work as "the best in the South." Such a statement may really be a damning with faint praise, unless the standard of the South is to be substantially that of other sections. Help us then to realize all of which we are capable by demanding in your judgment the same loftiness of ideals and quality of results which you demand elsewhere.

In making the rounds of the Education Building we find a disappointing meagerness of exhibits from many southern states and localities where praiseworthy steps have been taken to introduce manual training. Some states have no exhibits at all, while those of others are wholly inadequate to give more than a superficial idea of what they are doing along educational lines. I feel under the necessity, therefore, of not limiting myself to a consideration of the special and limited exhibits shown, but of using them, so far as they go, to illustrate the general movement of the section from which they come. Where no exhibit is shown from a section in which good work is being done, it will be desirable to call attention to this fact. If one derived his knowledge solely from the exhibits, he would be justified in reaching the conclusion that manual-training instruction has not yet made much progress with us. And if one has in mind the public-school system only, extending even to the high schools, it is perhaps too true that the actual achievements have not been especially noteworthy. It is only in a few public schools here and there that well-considered plans for manual training have been put into execution, excepting drawing, which is now pretty generally taught. In a few schools scattered thruout the length and breadth of the section there exists an excellent leaven which is working slowly but surely for the improvement of the others.

The most noteworthy early attempts at the introduction of manual training in secondary schools in the South were made under private endowment. The Miller Manual Labor School in Albemarle county, Virginia, was the pioneer in this work, and remains today one of the most perfect examples that we have of this special type of school. Under the able management of its director, Charles E. Vawter, it has been for many years a model for schools of its class. The manual-training school established by President William Preston Johnston, as an integral part of the then existing preparatory school of the Tulane University of Louisiana, at New Orleans, was the next conspicuous foundation of this character. Under the direction of Professor John M. Ordway it had reached a considerable degree of development and efficiency when it was thought wise to abolish the preparatory school of the university, and with it went the manual-training school, its equipment being

used since 1894 in the instruction of college students only. The Tulane Manual Training School made an impression, however, which has resulted in the development of other secondary schools in Louisiana and elsewhere, in which manual-training features are conspicuous.

The establishment of the land-grant colleges thruout the Union has undoubtedly had a most stimulating effect on the public interest in manual education. This effect has been felt in the South as in the North and West, and if conditions have not been as favorable with us for the rapid carrying out of the idea in the primary and secondary schools, it is nevertheless distinctly before the minds of educators in every southern state as a goal to be striven for. Not only in the land-grant colleges has manual training become a feature of the curriculum, but in many higher institutions such instruction is given as a phase of the training for the engineering profession. At the University of Virginia, Vanderbilt University, and Tulane University fine equipments exist and good courses are taught, and they in their places have effected public sentiment in favor of the education of the eye and hand as necessary and rational.

From the influence of the colleges the wave has spread downward. In most of the southern states industrial schools have been established for boys and for girls, sometimes separate and sometimes together, and for whites and blacks alike. In these schools of secondary grade the manual-training idea is often carried over into the trade-school idea, the industrial awakening that has occurred in the south making such transition inevitable. The true manual-training idea has, however, not been lost sight of, but is steadily before the minds of the most advanced teachers as something to be realized in all the schools as quickly as pecuniary conditions will allow. The small amount of money available in the average southern school is sufficient to account for all the deficiencies that we find in them. Small salaries secure as a rule only poor teachers, and little initiative can reasonably be expected of such teachers under conditions that would discourage the most capable and enthusiastic. Nevertheless, the situation is far from hopeless, the exhibits of many of the states showing very creditable work in all the grades in which hand-work has been introduced.

Inasmuch as the age of students in the lower classes of the land-grant colleges is about that of good high-school students in more favored sections of the country, it will not be improper to call attention to the considerable amount of manual work being done in such institutions throughout our section.

Most of the agricultural and mechanical colleges are making exhibits in connection with their state exhibits, or in the collective exhibit of the agricultural and mechanical colleges made by the national government, or in both. The character of work shown, both in drawing and in shop-work, compares favorably with that done elsewhere. There is a very intelligent and active class of men at work in these institutions, and the exhibits made by them are worthy of careful inspection.

Among the endowed institutions mentioned above, Tulane University is apparently the only one showing manual work, its exhibit in the Louisiana section including a full course in wood- and iron-work carried out from the standpoint of engineering education.

The "industrial institutes" or "industrial schools," referred to above, are reaching a considerable number of young people of both sexes and both races. They are admirable in their object and, in most cases, in their results. We find, however, that not many of them are exhibiting at this Fair. Interesting exhibits of such schools may be seen in the state exhibits of Arkansas, Louisiana, Mississippi, Tennessee, and Texas. There is no exhibit from the Miller School of Virginia, already referred to, which is cause for regret.

Manual work is being done by the normal schools in most of the southern states, which, of course, will have its effect rather promptly in the grade schools. This is a hopeful feature. The attention being paid to manual-training work in all the southern summer schools is also sure to bear good fruit thruout the length and breadth of the land. In the Summer School of the South, at the University of Tennessee, at Knoxville, where twenty-five hundred teachers from all the southern states are gathered for serious study, instruction in all forms of manual-training work is given to large classes, reaching in grade from the kindergarten to the high school. At the School of Methods of Virginia, held at the University of Virginia, where over one thousand teachers are annually in attendance, the same thing is true. In North and South Carolina, Mississippi, Louisiana, and in other states there are summer schools in which such instruction is given. It is evident that all this will soon have its effect.

There are to be found among the exhibits of the high-school grades of the public-school system examples of admirable work, but they are not numerous, tho scattered rather broadly. In the exhibits of Arkansas, Kentucky, Louisiana, and Texas there are creditable displays showing development along approved lines.

Some form of hand-work is becoming reasonably general in the grammar schools in towns, and, in fact, in many rural schools. Besides the kindergarten work found pretty generally scattered, raffia-work, sloyd, basketry, beadwork, weaving, sewing, and cooking have all taken hold here and there and exhibits of the results are shown.

The importance of manual training in the education of the deaf, dumb, and blind has been well recognized for some time thruout the South. One is not surprised, therefore, to find in the exhibits of several states the evidence of the excellent results to be obtained from the unfortunate ones of these classes.

In conclusion, I beg, in behalf of the southern teachers, to report progress and to state that, with the steadily accelerating interest in popular education, it will be only a little while before the South will be well to the front in its manual-training work.

DEPARTMENT OF ART EDUCATION

SECRETARY'S MINUTES

FIRST SESSION.—Tuesday, June 28, 1904

The first session was held on Tuedsay, June 28, at 2:30 P. M., in the assembly hall of the Agricultural Building, President James Frederick Hopkins presiding. The general topic was "Art Education for the People." The program was as follows:

President's address, James Frederick Hopkins, director of art education, public schools, Boston, Mass.

1. "The Influence of the Art School and Museum on Civil Life," by Edmund H. Wuerpel, Superintendent of St. Louis School and Museum of Fine Arts.

2. "The Republic of France—A nation of Art," by Professor Jean Marduel, associate secretary of technical instruction, French Commission to the Louisiana Purchase Exposition.

3. "Art Education in Germany," by Professor Leopold Bahlsen, commissioner of the German Education Section, Louisiana Purchase Exposition.

4. "The Art Educational Exhibits of the Louisiana Purchase Exposition," by Mrs. Matilda Evans Riley, director of art education, St. Louis public schools.

At the close of the program the president announced the following committees:

ON NOMINATIONS

Miss Anna Vandalaine Henkel, St. Louis, Mo.
Miss Lillian S. Cushman, Chicago, Ill.
Miss Bonnie E. Snow, New York city.
Miss Mary A. Woodmansee, Dayton, O.

ON INVESTIGATIONS

James Frederick Hopkins, Boston, Mass.
Charles M. Carter, Denver, Colo.
Walter S. Goodnough, Brooklyn, N. Y.
Leslie W. Miller, Philadelphia, Pa.

The meeting adjourned.

SECOND SESSION.—Thursday, June 30

The second session was held on Thursday, June 30 at 2:30 P. M. In the absence of the president, Miss Mary A. Woodmansee, Dayton, O., was elected president *pro tem.* The general topic was "Art Education for the Student." The program was as follows:

1. "Art Education for the American Student," by James W. Pattison, art lecturer, Art Institute, Chicago, Ill.

2. "Organization for Art Education in Great Britian," by Captain Percy Atkin, British representative for education to the Louisiana Purchase Exposition.

3. "The Educational Influence of Public Outdoor Art," by George E. Gay, director of the educational exhibit of Massachusetts at the Louisiana Purchase Exposition.

4. "Education for Artistic Handicraft in Sweden," by Professor Charles Lidman, professor of art in the public schools, Stockholm, Sweden.

5. "The Training of the Art Student, as Shown by the Exhibits at the Louisiana Purchase Exposition," by Miss Anna Vandalaine Henkel, first assistant supervisor of drawing, public schools, St. Louis, Mo.

At the completion of this program business was taken up. The Committee on Nominations reported the following nominees:

For *President*—Mrs. Matilda Evans Riley, director of art education, St. Louis, Mo.
For *Vice-President*—Frank Collins, Borough of Queens, Manhattan, New York.
For *Secretary*—Miss Stella Trueblood, assistant supervisor of drawing, St. Louis, Mo.

The secretary was instructed to cast the unanimous ballot of the department for the aforesaid nominees. The vote being so cast, the nominees were declared elected as officers for the ensuing year.

As there was no other business to come before the department, the meeting was adjourned *sine die*.

LILLIAN S. CUSHMAN, *Secretary*.

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

THE INFLUENCE OF A GREAT EXPOSITION AS AN ART EDUCATOR—A WORD OF INTRODUCTION

JAMES FREDERICK HOPKINS, DIRECTOR OF ART EDUCATION, PUBLIC SCHOOLS, BOSTON, MASS.

"The wisdom of all ages is none too great for the world's work," said the lamented President McKinley during his famous speech at Buffalo in September, 1901. Thus he justified the exhibition which he was then visiting; and thus are justified all great expositions of man's progress. The modern exposition is a collection of the world's achievements for the world's inspection. Therein may we make comparisons, refresh our minds and spirit, and plan most wisely for future developments. This great Louisiana Purchase Exposition, upon which has been spent so much time, loyalty, and treasure, gives us "a living picture of the artistic and industrial development at which mankind has arrived," and truly offers a new starting-point from which all men may direct future exertions.

It is well that the National Educational Association should meet within the gates of this grandest of expositions. Here for the first time in exposition history do we find education adequately housed, presented at the head of the scheme of classification, and represented by a wealth of arrangement and detail never before approached. America here shows to the world that she depends upon her educators to pave the pathway thru which man enters social life, and right nobly does she present the work of her loyal teachers. Second in this grand scheme of classification comes the field of art in which this department is so deeply interested; and what a picture of the power which lies behind art education is presented within the gates of this cream city of the forest! Here as in a mirror is reflected the real condition of man's development in taste, in culture, in character, and in productiveness. Third in this arrangement is the field of liberal arts and applied sciences, giving clear pictures of the results of education and culture. Here inventive genius is shown controlled by taste and scientific expressions, and in keeping with this twentieth-century spirit, dominated by artistic expression. Therefore in these three grand

divisions—education, art, and arts and sciences—do we have a clear picture of the result of man's education and culture, his inventive genius governed by his taste, and his scientific expressions governed by artistic inspiration. Thus, then, in this great Exposition as in no other way do we find how the teachers of general education and the trainers for art education have joined hands in equipping the boys and girls of this great nation for the opportunities of life in the fields which are here so clearly presented.

The influence of these great international expositions is tremendous and far-reaching for the cause of art education. The Crystal Palace Exhibition in London in 1851 led to the establishment of that great scheme for industrial art education which, centering at the Victoria and Albert Museum at South Kensington, sends forth its inspiring influence to provincial cities and even into remote thatched hamlets. Philadelphia in 1876 displayed the first attempts at industrial art-training which progressive American cities were undertaking, and pointed so clearly the need of a higher national taste that educators everywhere undertook to make the study an integral part of the school course. France reorganized her public-school courses after her exposition of 1878 and extended her training in applied arts after the exposition of 1889. Manual-training and industrial art education were shown to be successful features of the educational display at Chicago, and so intimately related that there the present interest in the arts and crafts may be said to have begun.

There was another side of that great exposition of the Columbian celebration, and that was its great influence in developing an appreciation of the beautiful. The splendid effect produced by the arrangement of grounds, waterways, and groupings of buildings had a most marked effect upon many of our great American cities. All over the land we find the harmony of its architecture and sanity of decoration echoed in numerous important public buildings and private residences. Reflected in the dream city by the lake, America saw for the first time her architects, sculptors, painters, and landscape gardeners working in harmony to produce a fine, thoughtfully planned result. And America did not forget the lesson. The grand new Library of Congress would probably not have been the thing of beauty we know today had the Chicago Exposition not held out its lesson of beauty. Our Public Library at Boston profited by that union of architect and decorator; and all over the broad land, in municipal structures, in commercial buildings, hotels, club-houses, and residences, do we find the influence of this most inspiring awakening. Truly the study of a great international exposition is the study of an epoch-marking display.

Not only was the Chicago Exposition a great awakening to our American people in architecture and in civic art, but it brought about the better recognition of what was meant by more beautiful public life. Many of our great cities had established park systems; several had acquired by right of eminent domain great outlying areas which later generations were to see grow into

great public parks; and some few municipalities had undertaken with success the decoration of those park systems with sculpture and architectural embellishments. Under the influence of outdoor art associations, this movement has spread and extended until in several sections in this Louisiana Purchase Exposition we find extensive photographic exhibits illustrating this phase of our progress toward a more tasteful life.

Massachusetts has been somewhat of a pioneer in this direction, as she has done pioneer work in many another educational direction, and she sends to this Exposition a photographic display of her parks and boulevards, her drives beside river, lake, and shore, and the decoration of those outdoor breathing-places by beautiful examples of sculpture. It would not be fair to close this meeting, devoted as it is to the art education of the people and the student, without some recognition at least of this movement for public outdoor art. Such a paper has been prepared for us by a Massachusetts educator of long experience, one who has been identified with many of the great expositions, and who knows school work as a student, teacher, principal, and superintendent.

Alongside the public school as an educational force stands the public library, and buttressing these institutions on either side is the art museum. Its influence in the community is enormous, and in widely separated sections of our country collections large or small are being established as definite helpful servants in the uplift of the community. New York, Boston, and Chicago have their establishments in which their citizens are indeed proud. St. Louis has an institution, which, while it may not occupy today the same amount of floor space as those in older cities, yet yields the place to none as a powerful civic influence. Director Wuerpel will tell us about the influence of the museum and the art school in the civic life which we are visiting.

Within the walls of this Louisiana Purchase Exposition the mind naturally turns back to the France which granted to us this great area. Napoleon was indeed farsighted in many directions, and left his lasting impression on the present republic of France. In no way did he influence the present nation to a greater extent than by that famous decree which compelled the state to grant to every boy and girl training in drawing, in color, and in applied art. It was the results of that decree which made it possible for France to recover so quickly after those terrible years of the Franco-Prussian war. It was her industrial art interests, with her agriculture, which gave her the money to pay so quickly the greatest war debt which the world has ever seen imposed.

For years America has looked to France for inspiration in artistic industries, and she has not looked in vain. In textiles, in pottery, in examples of household art, in all lines of arts and crafts, as well as in the realm of fine art, France has led the world. She has fostered education, encouraged the exhibition idea, and sent her students as teachers into the schools thruout all the world. We are fortunate, indeed, in this Louisiana Purchase Exposition, in which she would naturally take the pride of a mother watching the progress

of a married daughter, to be able to study such a magnificent display under such happy guidance as is to be offered to us today.

Crowning the hill, at the left of the Festival Hall rises the dome of Germany's building. Scattered thru every section of this great Exposition are the magnificent exhibits which, under the high patronage of Germany's most energetic ruler, stand as monuments of the careful, methodical effort which her commissioners have put forward. Those of us who are particularly interested in education will find the display most complete. Therein can we study what perhaps cannot be found anywhere else within the gates of this Exposition, namely: courses of study suggested, planned, and arranged under an emperor's direct guidance.

Art education and art appreciation is no new thing to the German nation, but those of us who have been able to study its progress, as we have traveled under the blue skies of the fatherland, will testify that only during the last few years has it come to its greatest fruition, and this is due to the inspiring personal influence of Kaiser Wilhelm II. As patron of exhibitions, as a planner and personal donator of examples of sculpture and outdoor art, as a draftsman of high repute, and above all the most inspiring teacher, he rightly stands today at the head of art education of Germany, and his influence is felt thruout the realm. We shall be told something about the progress of Germany, and what the various exhibits here in St. Louis have to offer us.

Many educational reformers have started their schemes for revolutionizing conditions with the children in public schools. When Great Britian back in the fifties realized that she did not have as many art industrial workers as she desired, and recognizing her dependence on foreign nations for many of the aritstic things which she consumed, she planned to establish art schools and museums. England will always owe an everlasting debt of gratitude to that most courteous, cultured gentleman, the prince consort, who conceived and carried forward the first great international exposition in the Crystal Palace in 1869, which has served in a general way as a type of all following world's fairs.

At the close of that exposition, finding, what seems rather strange to us in these modern days, a large and generous balance to the credit of the exhibition, it was determined by Queen Victoria and her council of education to establish what we know now as the Victoria and Albert Museum at South Kensington, which one of our American educational writers has aptly termed the power-house of British art-educational progress. I have no desire to anticipate in any way the story of this organization for art education in Great Britian which one of our speakers will give us at a later session, but I would relate a condition which I observed last summer, showing, as it does, the wide-spreading influence for good which her majesty and the prince consort thus so successfully established.

The little thatched village of Winsted lies down in the west country of Devon. To it the South Kensington authorities last year sent a choice, but

not extensive, collection of textiles, laces, and other woven art products. They were on view before the students of that little art class, held under the picturesque roof of one of those tiny cottages. Last fall, in London, in the exhibition of students' work held annually in the Metropolis, the judges, representing some of the best minds of England, gave one of the highest awards to a girl student working quietly, but so earnestly, in the same little Winsted. Truly the great Victoria and Albert Museum casts its bread upon the waters, and it comes back after many days.

A little over thirty years ago there arose in Sweden a recognition of the fact that the old household industries were rapidly passing away in the face of invention of machinery and the establishment of large manufacturing enterprises. During the long winter evenings in that northern peninsula the farmers and the village folk had been accustomed to carry forward the manufacture of wooden tools, household utensils, hand-weaving, and the preparation of clothing for all the members of the home.

It was found by farsighted Swedish educators that the loss of these household industries would prove a national calamity, and, under the inspiring influence of Dr. Salomon at Nääs, schools were established for the training of the young Swedish people in these old household industries. Our American manual trainers and art educators were not slow to see the educational value of these methods and processes, and public-school courses thruout the United States have been widely influenced by these helpful educational schemes in the Northland. Particularly has this been true in the field of artistic handicrafts. Three fields of interest have been offered to the progressive American educator seeking for opportunities for artistic expression outside of the routine fields of sewing and household art. They have turned to the primitive western Indian and studied in basketry and weaving the ideals of primitive life. To the colonial looms of early American days has been given study, and from it has come much inspiration. Lastly, but by no means least, do we find the influence of this Swedish hand-weaving in our industrial art courses.

No member of this association can afford to overlook the wonderfully complete exhibit which Sweden has offered to us for study in the Palace of Education.

When the dream city beside the lake came to an end in that fall of 1893, Americans said that never again could such an exposition be conceived, planned, and carried to successful completion. It was said that, as in the days of ancient Greece the nation had offered its best in that magnificent outburst of architectural enthusiasm, so nothing which would be attempted in the future could equal the exposition city beside the lake.

But St. Louis has proved that the dream could be duplicated, could be enlarged and extended in a way far beyond any comprehension. The visitor to this Louisiana Purchase Exposition cannot say this is a replica of Chicago, so unique, so individual, and so beautiful are its features. Philadelphia may have paved the way, Chicago shown the possibilities, but to St. Louis must

be given the palm for actual successful accomplishment. As the influence of Chicago went out in great public buildings, in the finer decorations of those being erected, and in a higher national appreciation of what was meant by civic beauty, so St. Louis must have its influence also along all those lines. Its special promise, however, will be to hold out to the world a picture of the place of beautiful sculpture in connection with magnificent architecture, enshrined in a landscape setting of rare color and beauty. The Louisiana Purchase Exposition is a monument of our progress toward the more beautiful public life, and as such it will stand as a milestone, showing the highroad over which we have come, and pointing forward to an American art development, the like of which Greece, or Rome, or France has never seen.

THE INFLUENCE OF THE ART SCHOOL AND ART MUSEUM ON CIVIC LIFE

EDMUND H. WUERPEL, SUPERINTENDENT OF ST. LOUIS SCHOOL AND MUSEUM OF FINE ARTS, ST. LOUIS, MO.

In order properly to estimate any influence on our lives, we should not hesitate to face quite candidly, and without circumvention, conditions as they exist. For influences of any kind can be measureed only in the degree in which they may change, for the better or for the worse, those conditions which surround us.

Let us examine, then, the conditions which go to make up what we are pleased to designate our "civic life." There can be no question that the dominating note in our civic life today is—money. This is a bald fact, baldly stated, but it is none the less true. There has been in the past a measure of excuse for such a condition, but we should welcome and encourage any influence which may bring about a change. No power in this country is so mighty as that vested in wealth. With this magic key the American wanders to the remotest corners of the earth, and all doors are opened to him. But the mere opening of these doors does not always reveal the treasure within the portals. With eyes that see not he glances about, tarries a moment, not dreaming of the hidden delights; then hurries forth to other conquests in ignorance, happiness, and conceit.

This man who has amassed wealth, is the power in the land. If he can parade this much-coveted power before the envious eyes of his fellow-men, if he can successfully maintain his pre-eminence among the horde of *lesser* powers, the source from which his wealth was derived is rarely questioned. Let him, however, slip ever so little, and the dogs are about his heels. Should we be proud of such a representative of our nation? He stands for good or for evil according to the manner in which he wields the power he has obtained. In narrowness, ignorance, prejudice, and selfishness he may lead to bad

things, but enlightened by the redeeming breath of love, sympathy, and knowledge he should advance the interests and standards of the entire nation. Until it can be directed in this nobler, higher way, for universal good, it is perhaps as well that this great power should be controlled or made to lie dormant.

Business success—and by that I mean the success implied by money—is the goal of all ambitious citizens. In the hurry and strife incident to the success of a business career the nicer and more delicate matters of life are mostly overlooked. I would not go so far as to say that this is always so, but unfortunately for our national reputation it is much more so than in the nature of events it should be. Within a comparatively recent period, as years count, our educational institutions laid greater stress on this phase of life than on any other. There was cause for this; we were a young nation, and had our way to make in the world. This period of probation has happily passed, and it is time that we should recognize a higher standard of success than that of mere wealth. For our past conduct we may plead a measure of excuse, but for what we are about to do in the future we must hold ourselves strictly accountable. What was at first a necessity has grown into a custom, the brightest crown of glory is given to him who has achieved business success.

From this point of view we judge ourselves; is it, therefore, to be wondered that from this point others should judge us? Are the accusations, the gibes, the ridicule, with which we are met abroad altogether unjustified? That they happen to be most unflattering does not, to my mind, call for resentment on our part, but for prompt and intelligent action.

The strenuousness of our lives has become a by-word. Shall it always remain so? Shall we continue to ignore the fact that we are no longer a nation in its infancy, tottering across the nursery floor on uncertain feet, ignoring the example of our elders, persuing, in youthful, hot-headed conceit, the ways of the ignorant?

We are accorded honorable places in enterprise, dexterity, and fearlessness; we have established great institutions of learning; we are accounted a people of alertness, ingenuity, and generosity. But do we ever hear ourselves lauded as a people of taste or culture? Would we not prefer that that side of our lives be spoken of in whispers, or better still not spoken of at all? It seems a great pity that with the other virtues accorded us, that of taste should be omitted. We have no artistic perception, and civilized nations show their measure of and contempt for our well-established ignorance in no way more strongly than in the so-called works of art with which they have seen fit to flood our country. The Japanese would hardly care to send to the civilized nations of Europe such work as they are sending to the United States. All those qualities which make the art of the Japanese so unique and masterful are almost wanting in the greater part of the work which our deluded countrymen admire and, alas! buy. They as well as other nations take advantage of our profound ignorance, and, catering to the American taste, avowedly

manufacture art for the American market, fostering thereby a taste which should be condemned. Prints, rugs, potteries, metals, enamels, carvings, books—in fact, everything that should bear the stamp of good taste and refinement—are presented in the most glaring, inartistic manner conceivable. The cost of manufacturing such articles is less than it would be to produce the more worthy kind, the greater part of the work on them being done by machines, usually of American make. Hence the percentage of profit is greater, and as we do not always know the difference between the genuine and the fraud, the merchant waxes wealthy. This state of affairs is more in evidence than is generally known or conceded, and is the result of unwarranted conceit—a conceit which is the earmark of beginners.

The intelligence of our artisans, their ingenuity, skill, adaptability, and quickness to understand and to imitate what is placed before them, enable our domestic manufacturer to compete with the foreigner. He not only reproduces the foreign article most skillfully, but, relying on his native taste, he introduces changes, improvements if you will, which go far toward eliminating any trace of art which the original may have had. "High *art* goods" are flourished in our faces, and the salesman parades as the apostle and connoisseur of art. Think you that this is an exaggerated picture? Am I at all severe or unjust? Think a moment and you will see that in the main I am right.

After all, what we want to get at is the plain, unvarnished cause for this evil. Some of us, nauseated at the vulgar display in our shop windows, rebel. We demand better things. The wily salesman, well trained at least in his duty, casts aside the domestic in favor of the real "imported" article, direct from a London, Vienna, Paris, or Tokyo of which he may not know the existence. And still we of the difficult taste are not satisfied. "Have you nothing simple in design, quiet in color and execution?" you ask. "Well, no," is the reply; "we do not carry that line of goods. It is not popular; people do not care for that sort of thing, and it does not pay us to carry such stock." And if perchance you accidentally happen upon the very thing you want, the price is prohibitive, not so much because it is vastly more expensive to manufacture an article of merit, but because the merchant, realizing that perchance his money is locked up in a slow-selling article, must charge a greater price to cover the interest for this lost time. This is not idle surmise on my part, but the result of investigation and repeated inquiry. We cannot get good, simple things at moderate prices because there is not enough demand for them to warrant the merchant in carrying them, and not enough good taste to *force* him to do so. As long as we do not know good from bad, we cannot blame the merchant for the precaution he exercises.

Can any influence be more potent in our civic existence than that of culture and simple refinement? Can our standard be raised? Can our place among the civilized nations of the world be assured without due consideration of that mighty factor, taste? How are we to cultivate it? That is the point.

There are two classes to be considered: the artisan who produces, and the

public who either buys or merely enjoys. They must both be trained, each in his own manner. Heretofore it has been the province of the art school to train the professional man only—the painter, the sculptor, and the architect. We have to a certain extent fostered art education because of that conceit of which I have spoken. I come back to this because it is well to look our national fault frankly in the face, and, where possible, to remedy it. So I say that we have supported art education mainly because we did not care to be defined as an inartistic race, but not from any inherent love for it or appreciation of what it might mean to us as a country. We established art schools for the few. But may I ask, have we derived the best good from them which it was possible to obtain? Have we blinded those who know? Have we established an art of our own, or even an appreciation for the art of the rest of the civilized world?

We have given excellent technical education to a favored few, who have instantly rewarded this blessing, bestowed, by fleeing the country in which they saw neither sympathy nor tolerance. Can we altogether blame them? Have we gained nothing from this? Are there no lessons to be learend from the failures of the past? Yes, assuredly so; or you would not be here assembled, would not be organized as an Art Section of the National Educational Association. It has created a regiment of faithful workers like yourselves, who are willing to be pioneers in this movement. Surely that, if nothing else, is worth while.

The lesson we have learned is that in order to benefit our civic life we must influence the masses thru our art schools and art museums. We must educate, not a few victims of incipient art fever, who may or may not develop into full-fledged "cases." We must first destroy the commonly accepted notion that art is limited to the few who paint pictures, hew marble, or design buildings, and inoculate in its place the idea that art is for *all*. We must show that beauty enters into every field of human activity, that it is within the reach of all thru the medium of either the art school or the art museum. We must make it clear that nature, to whom we all go for inspiration, does not hide her treasures for the few, but for the willing; and the function of our art institutions should be ever to increase the number of the willing.

An unusually strong manifestation of this willingness should be fostered into the making of the artisan; this is the function of the school; not alone for the dreamer of dreams, the creator of abstract beauty, but for the skilled craftsman who is to bring home to us less favored ones the practical application of these beauteous dreams. I would not exterminate the higher order of artist; by no means. The wholesome development of taste, and all that it implies, depends on the professional man. But the art school must stand for a broader training and a wider reach. What we need in the United States at this stage of our development is an army of skilled artisans to produce, and a trained public to appreciate. Without appreciation the work would count as nothing. We must develop the idea of the practical good of art, since from this point of view it seems to appeal more strongly to the mind of the average American.

We may create a great many bad and useless workmen, but that is the fate of all schools. In spite of our excellent public educational system, we cannot claim that all students turn out to be shining lights of erudition. We must not be discouraged by the greatness of the task we have set ourselves, but must look ever forward, leaving the past to take care of itself. There are many germs of true artistic perception buried in the souls of the masses, and what we must do is to uncover them, to lay open to the blessed light of intelligence, method and order, these undeveloped ideas of the beautiful. We must encourage the lesser arts so that all arts may become great. There should be no "lesser arts." And, above all, we must make of art a business. Did the man of business but give to the consideration of this subject the same care which he bestows on his own particular field of energy, he would recognize the great potential gain there is in the intelligent application of art to all business. Why have older nations fostered the arts, and particularly the schools of applied arts? Why have we been forced to pay, at a great consumption of our legitimate profits, vasts sums of money to foreign workmen except as a just tribute to their superior skill, taste, and workmanship. The tide is ever flowing on to that point when we shall have to take national recognition of this question of the training of our craftsmen. The opportunity lies open to them; schools for this purpose have been established on all sides. It is the false conception on the part of the public which keeps them from their own. The public must come to a knowledge of the case before there can be any great amelioration. It must be made, thru our art museums, to see things as they really are. Reading and a most commendable attendance at lectures will not bring forth a result, for the education of the artistic senses must be achieved thru feeling and seeing. The earlier this education is begun, the better. It is in a measure a very weary task to bring about an evolution of this kind thru the training of the present generation. Many of us are too set in our ways to accept, without question, ideas that have been foreign to us all our lives. Therefore it is wiser to begin with the younger generation—the school children. But this fact does not altogether absolve the parents from a duty which they owe to themselves as well as to their children. They must lend at least their moral support to the work by attending the art museum, and this use of museum collections by the general public cannot be too strongly dwelt upon. Some urgent means should be devised to bring the people into direct personal contact with that which stands for art. We all absorb something from continual contact; and even if it creates in the minds of some a decided antipathy for art, this is preferable by far to that deadening indifference which it is hopeless to combat against. Art as well as other enterprises can gain a foothold against mere antipathy, but will eventually be suffocated by spiritless indifference. If we can make the people enjoy the museum collections, we shall be on the highroad toward seeing a result from our efforts, and this result will be a greater enjoyment of life, a wider range of vision, a brighter prospect beyond the narrow confines of our daily horizon.

Our state of civilization differs from that of the savage in the degree of knowledge, appreciation, and enjoyment we get out of our lives. Nothing can rob us of that enjoyment of the beauties of nature which follows the secret of being able to see them; and these are the things which make life worth living. The continuous rut into which the narrow confines of our daily task force us can be eased and smoothed by those delights—delights to be had by all alike, young or old, wise or simple, rich or poor. And the beginning of the road to these pleasures is the art museum. Music has been conceded a high place as a civilizing influence, and yet all that the majority of the hearers get from good music is but a moment of respite, of forgetfulness. We all need it in the dreary routine of life.

Now music is not the only art that lulls the senses to pleasant rest. We have eyes as well as ears, and our lives are made pleasanter and nobler by learning to use them. The art school should be the training school of the eyes, and if the young learn nothing more than to find, see, and comprehend beauty, the school has fulfilled one of its most important missions. Art, I have always maintained, should not be purely educational in its motives; that is, we should not expect to get any practical returns from it unless we take it up as a profession. It should suffice that we get pure pleasure from it. Our prosaic American mind may rebel at this seeming waste of time. We cannot conceive that it is possible to devote time to that which does not bring us a return in dollars and cents. Here is the stumbling-block in the way of our progress We must begin to take account of those things which do *not* bring a material return, mere wealth. Has the soft quiet of a fading landscape, the poetic mystery of a moonlit night, or the tragic symphony of a brewing storm no meaning for us? Is there no compensation in a thoro accord with the varying moods of nature? To bring it closer to us: do we find no compensation in surrounding our lives with those things which are made more beautiful by art? Is it no pleasure to eat from a plate that does not curdle the food upon it with the hideousness of its color or designs? Is there no delight in having our walls covered with delicate and pleasure-giving tones; in possessing lamps of good, simple design; rugs that do not rise and trip us with the brutality of their inharmony; hangings, utensils, and furniture that are a rest to the weary eye? Truly, the power of good, attractive, rest-giving homes is to be taken account of. We cannot afford to eliminate the few sun-spots which are within reach of all of us. Anything that will give us rest, that will cause a lull in the eternal grind of our too monotonous lives, should be hailed with gratitude and delight. "In ignorance lies bliss" is not a philosophy to be encouraged. Why put aside that rich feast of sensuous delight with which each life should be fed at least in moderation? Why blind the senses to those pleasures which a small degree of direction, a small sacrifice of time, will bring to all? We are not all so rich that we can buy these pleasures; and, being rich, will our wealth purchase for us that which our senses have not been trained to see?

If we lay aside, quite calmly, all manner of prejudice; if we consider the

bearing that the art school and museum have on our civic life, we shall no doubt come to something like these conclusions: That the art of a nation measures its degree of culture; that this culture means the greater enjoyment of life; that the people who enjoy life in the noblest, highest degree are the leading powers in civilization; and that to take advantage of any and every opportunity which presents itself of raising the artistic, æsthetic, moral condition of the race should be the highest duty of its educators.

The day that sees a universal acknowledgement of the *utility* of art; the day that universal use, not for the specialist alone, is made of the training of the art school and the collection of the art museum, that day will herald the era of a new and nobler American nation.

THE REPUBLIC OF FRANCE—A NATION OF ART

PROFESSOR JEAN MARDUEL, ASSOCIATE SECRETARY OF TECHNICAL INSTRUCTION, GENERAL COMMISSION OF FRANCE TO THE LOUISIANA PURCHASE EXPOSITION

Ladies and Gentlemen:

The National Educational Association having asked me to read a paper on "The Republic of France—a Nation of Art," I shall try to give you a description of the different exhibits sent to your beautiful Exposition by the French government.

As the object of this Association is education, it seems to me that most of the time should be devoted to the educational exhibits. As you have probably noticed, our French educational exhibit is divided into three principal parts: first, the different schools, as primary, secondary, and superior, including the universities; second, social economy, and, third, technical instruction, such as is given in the practical and training schools.

The primary instruction, the display of which occupies the large room to the left as one enters the French Educational Section thru the main entrance, is represented by an important collection of works both by pupils and teachers, such as pupils' notebooks, including grammar, elementary arithmetic, geography, etc. The educational method of France is quite different from that of America. Altho some of the maternal schools, which correspond to what you call kindergartens, are for both boys and girls, in the greater part of our primary schools boys and girls are not taught together. It would be too great a task to describe the different works accomplished in these schools, but I think it is very similar to that done in your kindergartens.

We have also what are called the elementary primary schools. There is an exhibit containing photographic displays, showing the progress made in twenty-five years in the building, comfort, and installation of these schools. A quarter of a century ago the primary-school buildings were old houses, built without the slightest regard for comfort and hygiene. All or most of these old

school-houses have now been replaced by the "scholar palaces," as some people call them.

In this exhibit many pupil's notebooks may be seen, in which it is easy to catch at a glance the general mode of teaching by the French schoolmaster. These books are of three different kinds: the daily book, containing the ordinary exercises of each day; the monthly book, in which is inclosed a general monthly exercise by the same pupil on each subject, enabling one to collect in a small volume a specimen of each exercise, from month to month, and in this way to judge of the progress made by the pupil; in a word, to compare the scholar with himself; and the "rolling book," so called because it goes from hand to hand, receiving successively the work of each child attending the same class, which permits the comparison of pupils of a class and to appreciate in this way the progress of the collectivity which is called a class. The great number of these specimens exhibited shows that this is a method in practice in all the public schools of France.

There are about forty numbers indicating the successive points that can be reached with a complete primary education. As you very probably know, the instruction is compulsory in France, and every child, male or female, has to attend the public school regularly until thirteen years of age. Some twenty-five years ago one could find occasionally country people unable to read or write, but since the children have been compelled to go to school such an occurrence is no more to be found, unless one might happen to meet some very old people in some small village far off in the country.

It is necessary for a citizen to know how to transact business, small tho it may be, and so the pupils are taught the use of the different stamped papers, issued by the government, necessary in every transaction.

I wish to state that, France being a very fertile country, lessons in agriculture play a prominent part in the instruction given in special primary schools, and one can see in our exhibits the great attention given to it. A remarkable collection, containing seven volumes, shows the surprising results obtained in a group of about one hundred small villages by a school inspector in Brittany.

In order to enable one to see as well as possible the organization of secondary instruction in France, and also the method used and the results obtained, the ministry of public instruction has collected in the three rooms devoted to that purpose a number of documents, which may be divided into two parts. On one side the work of the pupils (exercises, compositions, drawings, etc.) have been arranged by classes; most of the secondary schools being represented by some exercise. If one examines these works, he can easily form an idea of the average standing in the studies. On the other side there has been collected a number of works connected with the general organization of secondary instruction, and an entire list of documents connected with the formation of the teaching force. There can be found the subjects of compositions given in the different competitions or in the most recent examinations, as well as the

copies of the papers of the candidates who have successfully passed the examinations and competitions for chairs in lyceums and colleges.

The exhibits of the superior schools include documents sent by our most famous superior schools, such as the "Collège de France," the Museum of Natural History, the practical school of high studies, the "École des Chartes," and the School of Oriental Languages. The universities of France were, and some are still, administered by the government, but in the year 1883 a motion was made in the faculties and academic counsels to pass a decision enabling the universities to administer themselves under the supervision of the government. The situation of higher education in other countries showed the necessity for the rival university which had been created by the city of Paris in the Middle Ages. The difficulty arising from the absence of unison had struck every mind. Notice was taken of the numerous common interests which the faculties should have watched, but which their isolation had compelled them to neglect. The inquiry, commenced in 1885, showed the necessity for a reform; it resulted in two government decisions in 1885, organizing in each academical center a fund for the faculties. Thus was created the organ of new life—the general Counsel of Faculties. These reforms produced noteworthy, tho incomplete, results. Then came the thought to give to higher education a real unity. The institution of the new universities is the legal consequence of this desire. A law was passed on July 10, 1896, giving to the bodies of faculties the name of universities, and substituting for the general Counsel of Faculties the Counsel of Universities. The funds of the university, voted by the counsel on the proposition of its chairman, must be approved by the minister, the necessary credit being voted and authorized in the same way.

The largest university is the one of Paris, where the students may take the degrees of doctor of letters, medicine, pharmacy, sciences, etc. The University of Paris is six centuries old. It is situated in the palace of the Sorbonne, which was rebuilt between 1884 and 1900. This palace covers an area of about 21,000 square meters, between the rue des Écoles on the north side, the rues de la Sorbonne and Victor Cousin on the west, the rue Cujas on the south, and the rue Saint-Jacques on the east. It was built by the architect Mr. Nenot.

In the same building are located the Faculties of Sciences and Literature and the library for these two faculties, known under the name of the University Library.

The Faculty of Protestant Theology is located on the boulevard Arago; the Faculty of Law, in the palace du Pantheon; the Faculty of Medicine, in rue de l'École de médecine.

The Faculty of Sciences has two branches, one at rue Michelet and the other at rue Cuvier. On January 1, 1904, there were 54 students attending the Faculty of Protestant Theology, 4,752 at the Faculty of Law, 3,496 at the Faculty of Medicine, 1,546 at the Faculty of Sciences, and 1,830 at the Faculty of Letters; making a total of 11,678 students. These figures do not include the Superior School of Pharmacy nor the Normal School.

The University of Paris has an exhibit on the right side of the main entrance in the French Section of Education.

The second university of France is the one at Lyons, comprising four faculties: law, philosophy, medecine, and pharmacy, and sciences. On April 1, 1903, there were 2,650 students attending the courses of this university, the work accomplished being practically the same as that done in Paris and at the other universities, of which I shall mention the largest: Aix, Marseilles, Besançon, Bordeaux, Caen, Clermont, Dijon, Grenoble, Lille. Students from foreign countries are also admitted in these universities, and in Paris there is a committee of which Mr. Casimir-Perier, former president of the French Republic, is president, and Mr. Paul Melon general secretary. The provincial universities have local committees by which they are cared for. It would take a very long time to give details on the work accomplished in the universities, and to give the names of the professors composing their staffs.

A very fine exhibit is the one of technical education from the ministry of commerce. Altho the space allotted is very small, the display is quite interesting. The exhibits have been furnished by different schools, and the visitor must not forget that all the work is by boys and girls. When one enters the room in which are the exhibits of schools of *arts et metiers*—which translated into English would mean schools of "arts and trades"—and the practical schools for boys, he will notice on the walls large frames covered with tools of every description. The precision with which these articles have been executed is really wonderful. There are also two dynamos, a gas motor, a boiler, and a complete outfit of watchmaking tools; also clocks and watches working as well as if coming from a professional jeweler.

A room of about twenty-five square yards has been devoted to the practical schools for girls. There are dresses, laces, and embroideries, which may give an idea of the training received by the pupils in three years. Some of the dresses are nicely finished, and most of the visitors admire a portière of yellow silk on which a peacock is embroidered. Some leather-work exhibited in cases seems also to attract much attention.

In the section of technical instruction can also be found exhibits of many societies and business schools, such as the school "La Martinière" for boys and girls, the "École Pigier," etc.

The special instruction in foreign languages is represented by the Berlitz School of Languages. Several shorthand schools have also an exhibit there. In its unity the exposition of technical instruction shows specimens of all the characteristic methods of technical education. Schools, societies, and industries have taken part in this manifestation, and, thanks to all of them, it has been possible to put on foot an interesting exhibition.

The most artistic part of the French exhibits, in its unity, is without doubt the National Palace of France to the right of this building. This palace is the exact reproduction of the Grand Trianon at Versailles. It is formed, as you will notice, of three rectangular buildings which encircle the court of honor.

The porch is of an imitation of marble and gives the impression of luxury and good taste which characterize the productions of the century of the great king, Louis XIV. There is only one slight difference between the national pavilion and the Grand Trianon. According to the documents of the seventeenth century, and after the projects of Lepautre, the architect of the real Trianon, this monument was to be decorated with groups of children which do not exist in the real building. The architects of the pavilion, Messrs. Umbdenstock and Roger Bouvard, have luckily made this reconstitution, giving to the edifice a more life-like aspect.

At the entrance of the French concession can be seen a monumental iron fence of the style of Louis XIV., which occupies the entire frontage of the gardens. Permit me to say a few words about these gardens, which have been laid out after the plans of Mr. Vacherot, the greatest architect of France in that line. The trees have been imported, and some of them have been trained to make a fence. The task of Mr. Vacherot and his aids was a very hard one, considering that the garden was built on red clay.

The gallery of the pavilion is occupied by the great reception-room, which was furnished by the "Noble National Guard." This room is thirty-eight meters long and nine meters wide, and the ceiling is seven meters high. The carved ceilings frame three great decorative panels painted by one of France's most talented young painters, George Roussel. Persons interested in art will not fail to notice how difficult it was for the artist to conceive a tint which would thoroly harmonize with the rest of the decorations.. As his subject the painter has chosen the motto of France, "Liberty, equality, fraternity." Under the allegory of "Liberty" one sees France coming in 1772, offering her sword to America to help her to acquire her independence. In "Equality" the figures represent the commerce and industry of the two nations. "Fraternity represents," in a symbolic group, America receiving France in 1904. In a corner of the ceiling a child unites the flags of the two countries.

The great reception-room contains the beautiful tapestries representing episodes of the reign of Louis XIV. The first represents an audience given by the king to Cardinal Chigi, July 29, 1664. The drawing was made by Lebrun and Von der Naulen. The second pictures the entrance of the king into Dunkirk on December 2, 1662; the third, the siege of the city of Douai July, 1667. These tapestries are unique, and persons looking at them are surprised to see that the colors have not faded at all, spite of the fact that they were made about three hundred years ago. In the same room can be seen the busts of several of France's greatest men.

A very beautiful and artistic exhibit is the one of the National Porcelain Manufactury at Sèvres. Mr. Sandier, artistic director of the manufactury, came himself to St. Louis to put everything in the right place, and, thanks to him, this exhibit is one of the prettiest corners of the French building. There are immense vases, and many statues some of which represent the year and the four seasons. Every piece in this exposition has been manufactured purposely

for the place it occupies, and they are samples of the most beautiful pieces of work ever made in the renowned factory.

The city of Paris occupies three rooms in the right wing of the palace. The municipal administration has tried to render its exposition most agreeable, at the same time trying to conserve the technical interest that the administrative services of a large city present. There are statues, paintings, medals, and etchings of the principal works decorating the city hall of Paris. Architecture is represented by plans and drawings reproducing the types of the principal monuments of the city: the Sorbonne, Palace of Fine Arts of the city of Paris, armories, professional schools, primary schools, etc. The services of public works, of light, of water, etc., present graphics and statistics.

The general decoration comprises some views of Paris' most famous promenades, and two great panels from de Grinberg: Notre Dame and "Le Pavillon de Flore." In the midst of these, green plants and flowers produce a bright effect.

In the left wing is a beautiful room called "Salon des artistes décorateurs." These rooms have been named thus because they have been decorated entirely by Mr. Dubufe and the Society of Decorative Artists. The first salon is twelve meters long, six meters wide, and seven meters high. It is decorated by compositions from the ingenious brush of Mr. Dubufe: first, poetry; second, painting and sculpture; third, music; fourth, architecture. The ceiling has for its subject France passing. The architect of this room is Mr. Pierre Selmersheim, who drew the designs of most of the furniture.

Next to this room is the one called "Salle Dubufe." On the wall is a painting of this great artist representing the glories of France: first, Roland at Roncevaux; then, in a cloud, Napoleon and the great army; and in the center, under the arch of triumph, the apotheose of one of France's greatest poets, Victor Hugo.

It would take too long to name all the artistic exhibits of France at the Louisiana Purchase Exposition. We have done our best to participate in this great event, feeling that we ought to do all in our power to beautify with our works this splendid Exposition; and I am sure that every Frenchman admires, as I myself do, the great progress of the United States in the last one hundred years. France will always be glad to see America go ahead, as the two countries have been, are, and always will be, I hope, the two sister-republics.

ART EDUCATION FOR THE PEOPLE IN GERMANY

PROFESSOR LEOPOLD BAHLSEN, COMMISSIONER OF THE GERMAN EDUCATION SECTION, LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

The German government that sent me to St Louis as the commissioner of the German School Exhibit takes a lively interest in the proceedings of the different sections of the National Educational Association, and is convinced

that the work of your Association is very valuable to education and the progress in culture. In order to prove this deep interest, especially in the questions concerning art education, our government instructed one of the most prominent authorities in art education to supply me with the official material for my task—the man who rendered the most valuable services to develop the reformed method of teaching drawing in German schools, and who prepared our German exhibit in drawing and decorative work, Professor Pallat, of Berlin.

Allow me to express the thoughts of this highly esteemed gentleman, which found the entire approval of the German minister of education.

In Germany we have had but a short time a brief and significant expression for what in English is termed "art education." When in 1901 several friends of art and the school met to arrange for a congress that was to find means for the æsthetic education of the people, it was only after much consideration that they found the name of *Kunsterziehungstag*. They well know that by this term they did not express it grammatically in quite a correct way, because *kunsterziehen* literally means "educate art." As it is, you do not wish to educate art, but you wish to educate for art and by art. From that day the expression *Kunsterziehung* has been generally accepted. It was quickly spread by the publication of the results of the congress which were edited under the title *Kunsterziehung: Ergebnisse und Anregungen des Kunsterziehungstages in Dresden am 28. und 29. Sept. 1901.*[1]

The Dresden Congress was intentionally devoted to what the English term "art." Another *Kunsterziehungstag* which took place on October 9–11, 1903, at Weimar, treated the topic "German Language and Poetry." A third one in 1905 will be devoted to "Music and Dancing."

Thus you see the expression *Kunsterziehung* spreads beyond the reign of art, and will evidently within a short time mean the whole of the æsthetic education. This education occupies the pupil in an active way as well as in a passive. The pupil is active by practicing art; but to this there have been objections, on the grounds that it is not the duty of the school to bring forth artists. There would be danger of bad amateurishness. We have reason to fear this, as we see that many who are unqualified devote themselves to art. The cause of this is that a certain talent for drawing and modeling is mistaken for real artistic gift. The capability of drawing from copy or nature no doubt is of some value and of use for any technical profession, but this is not what forms the artist. It is the keen sight, the deep perception, and the power of delineation and invention. No doubt it is partly the fault of the old method instruction in drawing that copying is freely overrated, whereas the memory for form and the gift for delineation and invention have not been sufficiently developed. Instruction in drawing went much astray in the nineteenth century, though certain men in the eighteenth and at the beginning of the nineteenth century had shown the right way.

Let me tell you the order which one of them, Wilhelm von Humboldt, the

[1] R. Voigtländer's Verlag, Leipzig, 1902.

head of the Prussian public instruction, gave to the Royal Academy of Art in 1809:

> It has been noticed that the instruction in drawing is most imperfect and that we are in want of a reliable method. The old method is of no use to art or general education, as the pupil seldom has the practice he is in need of for the power of intuition or delineation, or of a facility for transferring on paper things from nature, thus to avail himself of drawing as though it were a language of his own. As it is, they attain only a certain facility for achieving neat drawings from models. This is of no particular use, and later on may be lost to them. The instruction in drawing in elementary schools ought equally to consider the education of an artist as well as that of man in general. The main point is to bring up the young mind to the perception, delineation, and invention of form in particular. In this way the inferior talent might be strengthened, and to the real talent good opportunity might be given to develop and express itself.

If the demands of this order had been universally spread and observed according to their intentions, toward the end of the last century we should probably not have been obliged to lay stress on the active side of art education. First of all the pupil should be made active so as to enable him to express his ideas, feelings, and thoughts independently.

On the second *Kunsterziehungstag* one of the gentlemen spoke as follows:

> The capability of expressing itself is a child's natural gift, which has been its own from the very first dawn of consciousness, and which it develops to the day of its entry at school. At school these powers were scarcely ever taken into consideration. On entering the schoolroom the child was treated as though it were its entry into the world. Instead of continuing, school breaks off and starts something quite new. During the first days school should give the child nothing new. One ought merely to endeavor to make the seeds of development take root in the new soil.

When these words were spoken they were no longer appropriate concerning the *instruction* in drawing, since within the last decades of the past century a great change had begun We hope the latter may in due time lead us to acquire the expression of one's inmost self by way of drawing, as a matter of course, just as one acquires writing and reading. A child's abilities with reference to these powers should accordingly be developed. If we should attain this, we need not fear any increase of amateurism. As yet the overrating of a superficial ability to draw and of mechanical perseverance may not cease altogether, but will, no doubt, be limited by the regard for original and characteristic expression.

It is remarkable that it should not have been the pedagogues of art instruction, but the representatives of science, who first took up again Humboldt's ideas. Professors in the university, like Virchow, Brumm and others, were the first to regret the insufficient talent for observation and the need of expressing by drawing. There were demands that the powers of observation and delineation of the young should be developed more thoroughly as a counterbalance to the mere notional way of thinking and of learning only matters of memory. In free-hand drawing at school geometry and ornaments then prevailed. The instruction exclusively taught drawing from the blackboard, or from wood

or plaster models, and was tedious and tiring for the pupil. The outcry for a change arose in about 1890.

Let me name some of the most important works reating the reform of instruction in drawing. In 1887 appeared Georg Hirth's *Ideas of Instruction in Drawing and Artistic Professional Education.* In 1893 appeared Konrad Lange's sensational book which was called *The Artistic Education of the Young People in Germany.* At the same time Alfred Lichtwark was at work among drawing-masters at Hamburg. There the first association of masters of cultivation of æsthetic education was formed in 1896. Thus the first energetic advance toward the reform of instruction in drawing has been made.

Prussia was the first of the great federal states to follow this direction. In the plans of instruction of 1882 and 1892 special stress was laid upon the fact that drawing and painting from nature should be the main object of instruction in drawing in the schools. In 1901 a new plan of instruction was introduced into secondary and normal schools, which was fundamentally uniform. Tho for municipal schools a similar plan had been formulated, it has not been generally introduced, as we have to wait for a sufficient number of teachers having acquired thoroly the new system of instruction.

This new method does not regard with disdain the natural drawing that the child, led by inclination for play, has been practicing before its entry at school. This childish way of drawing must be taken up again, and one must try to keep up the pleasure the child took in it. The child must not be made to draw, with mathematical correctness, squares, triangles, and other geometric forms, which the grown-up would do by ruler and compass. It must be sufficient for the child to describe on paper the things of its surroundings and its way of perceiving them. By and by perception thus expressed will be corrected by a more minute observation of nature, and continual practice will enable the hand to delineate more correctly.

All subjects must, throughout the first years, be drawn from memory and not from nature. Any abstract drilling by practicing ellipses, circles, and spirals should be avoided. As the energetic endeavor of grasping the characteristic side of a subject proceeds, the technical execution will naturally improve of itself, and will remain the more personal the less there has been drilling of certain movements. The main object of instruction is not mechanical skill, but the ability of expression. The pupil's drawing is to show that he has clearly conceived and taken everlasting possession of the essential part of the form of a subject—an ivy leaf, a butterfly, a vase, etc. Thus the instruction gradually leads from the childish drawing from memory to drawing from nature. The advances in delineation which the child makes by this method depend on its gifts and on the knowledge and abilities of the masters, and also on the time at disposal. A certain limit has not been fixed. Provided the master has the required capability, he is left at liberty to lead on his pupil to drawing figures and landscapes.

Thus in general the pupil is to have a good opportunity for practicing

unconsciously the natural gift of delineation. This is the artistic tendency of the new plan of instruction that perfectly agrees with Humbolt's deas. Since it had often been the case that the most gifted pupils had not taken any interest in their drawing lessons, it has now been made a duty in the instruction not only to advance the average pupil, but to discover he talents and to give liberty to their individual development. It will be the similar duty of all elementary schools, as well as of secondary and normal schools, to treat the question of free-hand drawing as has been mentioned.

As to the subjects of instruction the master has his choice. But there is an official list of means of instruction which are worth recommending.[1] Also the architecture of the school building and monuments is considered in the drawing lessons.

As a consequence of the transformation of the instruction in drawing in the schools, a reform in the education of drawing-masters has taken place within the last years. At a number of academies of art and polytechnic schools special classes have been arranged for the training of drawing-masters. The pupils who must have a general knowledge of drawing at their entrance, will be specially trained in two years for the teaching of drawing in the schools.

In Prussia we take but the general educational school into consideration, whereas in the south of Germany they also train masters for industrial technical schools. Consequently the courses last longer, and include also the delineation of decorative drawing. But, generally speaking, we are becoming quite convinced that delineation of ornaments cannot be learned merely by drawing. It would be more appropriate to arrange courses in special workshops for masters. There the delineation for certain purposes and for the assigned matters should be practiced.

The *Übungsschulen* which have now been established for some years at the Prussian normal schools for drawing-masters have specially been arranged for their methodical education; they can voluntarily be attended by any pupils. This institution has proven a splendid thing for the introduction of the masters into the ideas and practice of the new method. It is a great pleasure to see both masters and pupils making much progress by this sensible way of instruction. Some specimen products of the newly organized instruction in drawing have been exhibited at the German exhibition. The courses of instruction of the different kinds of schools are represented by pupils' works. Besides, thirty-five schools have exhibited drawings of several variously gifted pupils made during the last terms. All this gives us an idea as well as an insight into the capacity of the different kinds of schools concerning the active side of art education.

In the same section pictures and sculptures render clear another point of art education which makes the pupils impressible for art and endeavors to refine their taste by showing them good pictures. This tendency is as yet

[1] PAUL SCHAHL *Lehrmittelverzeichniss für den Zeichenunterricht*, Berlin S. O., Neander Strasse 16.

new in Germany. The first *Kunsterziehungstag* in Dresden was the cause of its rapid advance. Ever since German artists and publishers have been energetically at work producing cheap pictures suitable to a child's comprehension and fit for the decoration of the bare schoolroom walls. This sphere of work has been entered by the firm for Breitkopf & Härtel, and Teubner & Voigtländer, in Leipzig, and for Fischer & Franke in Düsseldorf. They publish colored original lithographs; viz., lithographs that have been designed by artists especially for school purposes and which they have drawn themselves upon the stone. The artists also indicate the colors and superintend the production of the printing. The results of this proceeding are original works as well as hand-drawings and etchings. The pupils are thus made acquainted with the very best of modern art.

Other publishers, for instance the "Verlag des Kunstwartes," the "Neue photographische Gesellschaft," and the "Gesellschaft zur Verbreitung klassischer Kunst in Berlin," sell cheap reproductions of old masters. One can buy now for 5 cents good reproductions of Leonardo, Dürer, Rembrandt, etc. A special store, the Albrecht-Dürer-Haus in Berlin, has been founded, which sells means of instruction in drawing and artistic wall decoration for schools.

In placing the pictures two points must be taken into consideration. First of all there might be a changing of frames, allowing you to take the picture out and change it. This system will soon make the children acquainted with various pictures. In favor of this mode we might say that it keeps awake the child's interest, which would soon be gone if it had constantly to look upon the same pictures. But, at the same time, it would be a difficult task to place the pictures, with respect to their size, shape, composition, and colors, in harmony with their surroundings, though this would be but a natural request. One might even require that these pictures, hung up in a schoolroom, should, as frescos do, give the formerly bare room a certain style of its own. The pupil should feel at home in his schoolroom and become fond of its particularity.

Besides, this mode will teach the pupil how to decorate a room with good taste and small means, and how to influence his home æsthetically. When we try to comply with all these demands, we shall find difficulty in changing a picture without disturbing the harmony of the room. Provided a school has an ample supply of pictures, it could easily, by changing several pictures, produce a new harmony. One would hardly need to change the pictures oftener than once a year; for instance, during the summer holidays. For if you change them too frequently, you will arouse the children's curiosity more than you will lead them to take interest in art.

At the Augusta-Schule in Berlin—a girl's school and normal school for lady teachers—the royal Prussian ministry of public instruction tried thus to decorate the present schoolrooms which differed from one another but in number and a few old pictures of little artistic value. There had to be considered that these pictures should answer the comprehension and age of the children.

The rooms of the lower grades have been decorated with pictures similar to those of a child's picture-book. Those of the middle grades contain pictures taken from life, legend, or history. The upper-class rooms mostly contain landscapes or reproductions of old artists. Besides, in several of the class-rooms and on the landings plaster casts and reliefs have been placed. Considering that the building is not new, there was much difficulty in giving each room a different and particular style. Henceforth, when architects endeavor to make schools more homelike, there will be none of those difficulties. The new construction of the walls will be more favorable to the hanging up of pictures. Happily we may state that among architects also there reigns the conviction that a school should not only be built for use, but that it ought to be a piece of art as well.

As far as the effect of art on a child's mind is concerned, artists and experts wish it to come on independently and unconstrainedly. To explain these pictures in a scientific way would be as inappropriate as it would be to make use of them as objects of demonstration for natural science or for history. Nor do we think much of history of art concerning art in education. We are afraid that premature knowledge might hinder the unprejudiced perception of a piece of art, and might also bring up amateur critics instead of lovers of art. In spite of these considerations, if the master should at times be certain of the effect on the child's mind, he may renew the interest a child takes in a picture, and may also draw its attention toward the special way the artist has of expressing his ideas. A drawing-master whose special vocation it is to open his pupil's minds to the beautiful in nature and art has most of all an opportunity for thus demonstrating.

Let me close with the good wish that all drawing-masters might be individual and productive artists, so as thoroughly to fulfill this task.

ART EDUCATION FOR THE PEOPLE

MRS. MATILDA EVANS RILEY, DIRECTOR OF ART EDUCATION, PUBLIC SCHOOLS, ST. LOUIS, MO.

When the people of a great nation can be brought together to witness the highest results of the activities, not only of its own individuals, but of the whole world, the educational effect in any direction cannot be overestimated. It may not be immediately apparent, but the results, when attained, are immeasurable. Especially is this true of the artistic sense, as all things useful must more and more conform to this sense as they become more and more perfectly adapted to their various uses.

One of the primary objects of the Louisiana Purchase Exposition was educational, so much so that it has been called an exhibit of processes rather than products; and at no time has the artistic side been neglected. Beauty

of arrangement and construction was one of the first considerations when the Exposition was designed, and the best artists and architects were consulted and their best ideas adopted. The results are magnificent. The various exhibit buildings, each perfectly adapted to its use and ornamented with appropriate designs and sculptures, are arranged with a view to perfect harmony of form and structure. As much thought and attention has been given to the different buildings, that they might express by their design and decoration the purpose for which they were intended, as to the exhibits which they contain.

The Exposition grounds are beautiful and harmonious, because their arrangement has been planned with reference to the relation of one part to another, and cannot fail to suggest to anyone the desirability of beauty, of harmony, of fitness.

Back of all art education there must be a desire for, and an appreciation of, the beautiful and fitting, often inarticulate and unexpressed, it may be, but no less sincere. Therefore, before there can be any genuine art education of the public, these feelings must be awakened. The beautiful picture to be seen from Festival Hall, or from any of the numerous hilltops, must surely stir within one, no matter how engrossed he may be in his daily occupation, a feeling that there is much that is worth while outside of business pure and simple—or, as we now call it, commercialism—and a desire that he may know more of those things that go so far toward harmonizing life with its environment, and how they may be obtained. This desire will result in the seeing eye and understanding heart.

A glance in any direction shows a scene of beauty and gives an intimation of many beauties still unseen. One of the most subtle phases of true art is to stimulate the imagination to see in the invisible a continuation of the beauty indicated by the visible. This has been exquisitely accomplished by the artists who located the various features of the Exposition; nothing inharmonious has been allowed to mar the view; even the Pike, that conglomeration of various exhibitions, has been made attractive by its varied architecture. The natural inequalities of the grounds lend themselves admirably to the construction of the beautiful picture. Nature has been interfered with here only to bring it into harmony with the new uses to which it has been put. Many of us deeply regretted the destruction of the beautiful natural forest which covered much of the ground now devoted to the Exposition, but while such bits of nature can be seen in many localities undisturbed, such a collection of the products of human industry required that such alterations should be made as would adapt it to this changed purpose. The hills remain as nature formed them; millions of people will return to their homes with this picture indelibly impressed upon their memories, consciously or unconsciously influencing their conceptions of beauty in architecture and the arrangement of grounds.

The distribution and arrangement of trees, plants, and flowers has been

controlled by no inartistic or unpracticed hand. This work, having been done by some of our most noted landscape gardners, is surely a lesson in art for the instruction of the public. Flowers in themselves are always beautiful, but how often do we see them so inartistically arranged as to detract noticeably from the beauty of the individual flower, instead of combined so that each enhances the beauty of the other! Altho the casual observer may not comprehend the cause of the difference, the impression remains to stimulate to greater effort. This is an art education so far as it goes.

The large exhibit palaces are valuable, in the way of art education, in that they show in a striking manner how much their simplicity adds to their impressiveness and dignity. There is no meaningless detail. Where sculpture or decoration is used, it suggests the purpose of the building and is always in harmony with it. This is true of all the sculpture of the Exposition, whether on the buildings or on the grounds. In every case it expresses an idea, some phase of development. The more this feature of the Exposition is studied, the clearer this becomes.

Inside the buildings the opportunities for the study of art in its broadest sense are almost unlimited. From the gigantic engines in the Machinery Building, down to the almost microscopic carving in the Japanese exhibit, everything shows the progress of human industry toward that goal of true art, the perfect adaptation of a product to the use for which it is intended.

Many of the state and foreign buildings are good examples of domestic architecture, especially taken in connection with the lawns and gardens surrounding some of them. Some of our own state buildings are very artistic in their furnishings, besides containing many articles of historic interest and value. The French have given us a copy of the Grand Trianon, which, with its soft-toned furnishings, and wall- and floor-coverings, is a delight. If the materials used in the furnishing and decoration of this charming palace are beyond the reach of people of moderate means, the beautiful colors and the exquisite arrangement are not. We are indeed fortunate to have an opportunity to see in this building wonderful examples of the famous Gobelin tapestries, as well as a representative collection of Sèvres china, in which are some striking examples of the use of plant forms in decoration. The French building is open to the public on Tuesdays, Thursdays, and Saturdays.

The Austrian building is especially pleasing and restful, with its furniture of simple lines and soft tones of grayish-green; no polish, no gloss. Particularly beautiful in design are the cases, wall-cabinets, tables, etc. The cases contain many beautiful examples of Austrian glass, laces, and embroideries, and on the walls are some fine pictures. In one of the rooms is a frieze of scenes showing peasant life and costume. The building itself is a striking example of the new art; it was first built in Austria, taken to pieces, and reconstructed here.

The German building, a copy of a part of the Charlottenburg Castle, gives us a much-needed example of solidity and spaciousness. No crowding, no

clutter of unnecessary articles of furniture and decoration. In this building are some especially good examples of wainscoting in natural woods without stain or varnish. From the windows of the second floor a beautiful view of the Fair can be obtained.. The curtains against these windows are worthy of notice.

It would be impossible for me to mention all of the exhibits worthy of study in the various buildings; in fact, I have not yet had an opportunity to see them, and will mention only a few which I consider particularly suggestive. In the east end of the Varied Industries Building is the German exhibit of house-furnishing, decoration, and arrangement, which I hope all of you will see. There is a small reception-room in the northeast corner, near the door, and a dining-room in the same suite near by, which are beautiful, as are all of the rooms of the German country house, built in the court of this building. One is struck with the effect produced by the use of natural woods, both for wainscoting and furniture, entirely guiltless of varnish or polish, the soft tones of the floor- and wall-coverings, the durability and simplicity of the furniture, and the harmony of the whole.

The general exhibit of china, pottery, glass, and silver articles is very pleasing, and expresses an honesty and fitness of purpose that are very convincing.

The exhibit of Delft and Rozenberg ware in the Holland section should be seen; as should the Danish exhibit of pottery, china, small silver, and needlework. The arrangement of these exhibits can be studied with advantage. Much attention is given to harmony of details. The floor- and wall-coverings, and draperies where used, are neutral in tone, but not weak, and are evidently considered as a part of the whole. Crowding is avoided. Where the space is limited, the number of articles is restricted.

The country house, which is a part of the English exhibit in this building, is certainly well worth seeing, and the various features are clearly explained by the courteous gentleman in charge. Some of the materials used for coverings and hangings, shown in the general exhibit of the English section, are good in color and design.

I would also call attention to the exhibits of Rookwood and Van Briggle pottery, and that of silver plate of the Gorham Company, in the Varied Industries Building, of which we have good reason to be proud.

The Italian exhibit of marbles and bronzes in the Manufactures Building includes many beautiful pieces. It is really a pity that the space allotted to this exhibit does not permit of a better arrangement.

For those interested in gardening and the beautifying of home and public grounds —and what interest can be productive of more real pleasure—there are many valuable suggestions. While much of the gardening is necessarily formal in design, the arrangement generally is good, the shrubs and flowers massed around the buildings, with clear, open spaces between and in front. Good examples of the strictly formal are the sunken garden between the

Liberal Arts and the Mines and Metallurgy Buildings, the garden surrounding the English building, and the garden of the Grand Trianon, the latter being very elaborate. The grounds about the Agricultural and Horticultural Buildings are very pleasing as a whole, and some beautiful bits of gardening can be found there; while the Japanese garden is truly a dream of delight, showing the co-ordination of nature and art in a very marked degree.

I have mentioned briefly a few of the many representative and comprehensive exhibits, showing the result of careful training of eye and hand, and the study of form, color, and design. In the exhibits contained in the Education and Social Economy building, in which, as teachers, we are all much interested, and which will, no doubt, be the subject of your careful attention, is shown the process of this training and study. One most suggestive and encouraging fact strongly brought out by these exhibits is that the art education in the public schools thruout the country is along the same general lines and with one common aim. It is, to some extent, influenced by local conditions, but not necessarily to its detriment. An example of how it is affected by local conditions is shown in the exhibit of the Mississippi schools. Twenty years ago saw the beginning of art education in the schools of that state, and soon after it was made a part of the public-school curriculum. At that time there was but one cotton-mill in the state. The work in art education has developed gradually until now the child in the kindergarten weaves raffia, paper strips strings, rugs, baskets. From that on are designed patterns suitable for weaving, a little more difficult in each grade. When the high school is reached, the children take the raw cotton from the patch, make it into thread, dye it with natural dyes, and weave it into cloth, using he designs they have made. The gentleman in charge of the Mississippi exhibit, who gave me this information, says there are now seventy cotton-mills in the state, where twenty years ago there was but one—the result, at least in part, of this work in the schools; and where formerly the merchants of the state sent to Fall River and Liverpool for their cotton goods, they are now supplied by the mills of their own state.

The exhibits, as a rule, are beautifully arranged, and show less effort for fine, finished work; and there is very little isolated work. Formerly the child was taught to make a design; now he is taught not only to make, but to apply the design. The general aim is for growth and development in all lines of work. The work exhibited shows not alone the training of the hand with the eye and with the mind, but the expression of the soul. It is the work of children, often crude and unformed, and, on the other hand, often surprisingly good; but an understanding and appreciation of that which is good is developed, which will lead eventually to a universal demand for the good. And this is really the most potent fac or in he art education of the people.

ORGANIZATION FOR ART EDUCATION IN ENGLAND

CAPTAIN PERCY ATKIN, BRITISH REPRESENTATIVE FOR EDUCATION, LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

Early in 1800 the results in England of neglecting the children of the poor were so alarming that the absence of means for educating them could no longer be disregarded. Then arose two enthusiasts in the cause. Andrew Bell, a churchman, founded the National Society, and Joseph Lancaster, a nonconformist, organized the British and Foreign School Society, and from this point educational questions were rarely absent from parliamentary debates. However, all the earlier legislative proposals proved abortive; but the need for action was so great that in 1833 a sum of £20,000 was voted "for the purposes of education." No central administrative machinery had been established, and the government therefore made grants of this money thru the two societies named.

In 1836 another phase of education received state recognition when £1,500 was granted for a Normal School of Design. Along both these lines considerable and rapid development took place. In 1839 the Education Department was started, and, thru grants made by it to elementary schools, and the regular exercise of the right of inspection which accompanied them, the government extended its influence over all parts of England and Wales. Around the Central School of Design other provincial schools were established and subsidized by government grants, all of them controlled by the Department of Practical Art. To this department in 1852 a Science Division was added, and thus evolved the Department of Science in Art. Four years later the supreme control of these two Educational establishments was united in the same hands in the office of a vice-president who was to be the representative in Parliament of both the Education Department and of the Department of Science and Art.

The administration, however, of these two offices remained quite distinct, but their spheres of action, at first quite separate, subsequently approached one another thru the upward extension of the elementary school and the diversion of the attention of the Science and Art Department from the instruction of adults to the teaching of the schools. The relations of both these offices to the institutions which they subsidized were very greatly modified by the passing of two Acts of Parliament. The Elementary Education Act of 1870 established popularly elected local authorities with which the central office had to deal; while the Technical Instruction Act of 1889 intrusted the execution of the new duties to the recently created county councils, under the general supervision of the Science and Art Department.

Technical education may be said to begin with the nineteenth century. In 1800 Dr. Birkbeck started courses for workingmen in Glasgow. He continued this work when he removed to London, and thru this influence institutions which aimed at providing instruction for workingmen were established

in many of the principal towns of England. But the movement failed to retain its hold upon the interest of workingmen. Many a mechanics' institute degenerates into a kind of social club for small tradespeople rather than for workingmen. The great exhibition of 1851 once more called attention to the need of such instruction of the working classes, and one of the results was the creation of the Department of Science and Art, which has always devoted a considerable portion of its funds to the diffusion of scientific and artistic knowledge by means of evening classes. But the local resources available were so insufficient that much of the work this department was intended to undertake remained undone, and there arose a further cry for increased opportunities for technical instruction. To meet this demand the Technical Instruction Act was passed in 1889, and the execution of this act was intrusted, as already stated, to the local bodies which had been created in the preceding year by the Local Government Act.

As far as any remedy was possible, it was secured by a wise administration of the Technical Instruction Act; but the chief need was for co-ordination in the work of the various authorities.

The Board of Education Act of 1899 was the first application of this principle, and under it all the government departments dealing with education and endowments appertaining thereto were organized in three branches—elementary, secondary, and technological. That is the position today.

Our national organization for art education, altho not faultless, has proved a useful experiment for other countries, and its working and results have been carefully inquired into by successive foreign commissioners in view of similar organizations being set up in their own countries. It began its work when industrial art was dead in England, and even in 1851 industrial art had scarcely begun to revive, for the illustrated catalogue of the great exhibition of that year, which gave illustrations of the best art work exhibited, compares very unfavorably in contrast to the art work of today as shown in the Annual Report of the National Competition.

The organization had to create the instruments by whom the work was to be done, to send them to centers where no standard of art existed, and where the seed sown was often hindered in its growth as much by the mistakes of the few who, while anxious for the cultivation, did not possess sufficient knowledge to give it wise nurture, as by the apathy of local magnates or the opposition of vested interests.

At the present day drawing, as taught in every inspected school for at least one and a half hours a week, must include free-arm drawing in its syllabus, and it must provide for drawing from actual objects and must encourage design. The government lays down general principles on which drawing should be taught, but it leaves a large liberty of suggestion to managers and teachers. But no scheme for drawing is allowed to count as part of the school work until it has been approved by the inspector of schools for the district.

This makes the instruction more real, the conditions of teaching simpler, and gives free play to the originality both of managers, teachers, and pupils.

And now to turn to the general principles on which art education in England is conducted.

Experience has proved that the designing faculty, if exercised in conjunction with the earliest studies in drawing is more easily, pleasantly, and rapidly developed than is a higher power of technique in drawing, and serves as a most valuable aid and stimulus to acquiring that necessary technique. The hard and fast rule that, before allowing any exercises in design, the pupil must be conversant with the elements and principles of ornament, as these have been evolved by theorists from the designs of the past, and also with the chronological and geographical developments of art, is not laid down in England. Such studies, it is felt, cannot be pursued with the necessary interest and intelligence by one whose inventive faculty is allowed to lie dormant, or is even repressed, for he cannot understand their meaning or application. Of course, much material may be gathered, but it will generally be undigested, and the student may be full of this knowledge and yet no nearer being a designer.

The main object is the acquirement of the art of drawing, but the introduction of exercises in designs add an important element which makes it easier to acquire the drawing power and raises the subject to a higher rank educationally.

Many children, even when very young, as we have all observed, are fond of drawing birds, insects, animals (especially pigs), the human figure, fairies, and grotesques. These are in the beginnings recollections of what they have seen in books, altho they soon begin to make them tell a story or illustrate an incident. We encourage and direct all this in the pupils, helping them to do this better and to make fuller use of their powers.

All writing is merely memory drawing, and experience has proved that they can better obtain all the spirit and essentials of a design from memory than with the constant example before them.

Drawing from plant forms as a means of teaching to see objects is generally found to be more interesting than drawing from geometric models only, and is more directly useful in design. Pupils are therefore encouraged to take every opportunity to make careful studies of plants, thoroly mastering one at a time; to make use of them in design, and therefore to find a new interest in them and see beauties which were before hidden from them.

It has been well said that "the lines which are easiest to draw by the hand are those which contain the most beauty, and these cannot be drawn by instruments as can the circle, the square, the triangle."

Most people will agree with this. For, as contrasted with the circle, which is one monotonous uniform curve, such lines are full of emphasis, strength, gradation, variation, and subtlety. Because of the natural action of the wrist, a full curve will always graduate to a straight line, and if you start with

a curve approaching a straight line, it soon becomes rich and full. Such curves, too, are those most plentiful in nature.

The power to gather from Nature, and to make use of as few or as many of her qualities as may under the conditions be desirable or possible, is the distinction between the artist and the mere copyist.

We try to get pupils to make use constantly of the stores of material they acquire, as they gather them in; otherwise they only cloud the mind by their very abundance, and will make more difficult their first efforts in design, from their not knowing what to select and where to begin.

In our exhibit we show some designs by boys of thirteen and fourteen in free-hand brush-work entirely composed of two indicated elements. In the lessons natural forms and method of growths are more or less suggested, partly because the curves easiest described by the hand are those most frequently present in plant forms, and partly because, when the initial or principal lines were drawn, their combination suggested a plant to the designer, and consciously or unconsciously gave a distinction, an individuality, to the forms with which these leading lines were clothed. If, therefore, the pupil can store his mind with the memory of shapes, and farther on of the color, tone, and methods of growth of plants, he will obtain a large fund of material for designs, and the use of these forms in them will arouse an interest in his mind which merely abstract forms can never awaken, however beautifully they may be arranged. Not only are plant forms to be made use of, but the whole world of life—insects, birds, fish, animals, etc.

An interesting example of this is to be found in the British exhibit from the art master of the Arbroath High School. I think the gradual reaching to detail thru first large and then smaller masses and groupings is one of the greatest essentials in all drawing, not only of leaves and flowers, but of figures, animals, and landscapes too.

Drawing, we must all admit, is a fine relaxation from school studies. It develops early the powers of observation, invention, and creation—faculties which are in the highest state of excitement in the youthful mind; and it recognizes that the first principle of the teacher's art is to stimulate into action the powers possessed by the child, and to feed these with food in quantities necessary for their healthy growth.

In England and Scotland encouragement is given to collective teaching by lectures and demonstrations at the blackboard. Collective teaching, we think, allows more time for individual supervision. The pupils see the master at work; they learn to draw with knowledge (for the work of the lecture on the blackboard is gradually developed before the pupils) instead of to practice unintelligent copying, and a common art language is established between teacher and pupils which is impossible by the mere copying of separate examples. It keeps the teacher in touch with his class, enabling him to enter into the mind of the pupil by himself grappling with the same difficulties as beset them. The motives and object of the lesson are stated once and for all, instead

of being repeated to each student. And what a weight of trouble in endless repetitions is spared the teacher! Collective teaching is equally necessary in free-hand, geometry, perspective, ornament and design; but, of course, in regard to model drawing, light and shade, and all the higher work, individual teaching is more regularly adopted.

Art-teaching today means more than training the eye to perceive, and the hand to delineate form and color. Primarily, it means the educing from, or leading out of, the pupil his special and individual power of expressing his own feelings about nature; not merely the mechanical power of portraying the facts falling on the eye, but suggesting the emotions which those facts create in his soul.

The art work of the London Polytechnics (of which we show a selection) ranges from the elementary drawing, which every technical student is urged to learn, up to the highest developments of fine art and design. Largely attended life classes, classes in wood-carving, modeling, art needlework, metal-work, masonry, and carpentry attract in the aggregate more than thirty thousand students, day and evening. The Polytechnics are providing more than one-third of the art teaching of London. In the national art competition several of them usually stand at the very top of the list of successful art schools. The works of their students now appear in the Royal Academy exhibition alongside your Sargent and Abbey, and still more numerously in the arts and crafts exhibition in London.

Attention has latterly been directed to the influence of examinations upon art education, and widely diverse opinions are expressed in relation thereto. The government has, however, discontinued examinations in the elementary stages of art subjects. Some hold strongly that the influence of examinations is good, and that they are absolutely necessary as a stimulus for the pupils; others look upon it as a harmless and undisturbing element in school life which is necessary because of the satisfaction felt by parents in the certificates gained by their children; while some are strongly opposed to examinations as interrupting, if not actually preventing, a sound educational course of study. The last government report on art instruction in England and Wales assures us that there is little cause for anxiety at present in regard to the higher branches of art instruction, as they are on the whole being well worked and steadily developed. But the serious falling off in the elementary work of evening schools is a matter to which the attention and energies of the localities concerned have been very carefully directed, and whether there is something in our national character that demands the stimulus of examination or not will appear during the next few years.

In Great Britain we are at the beginning of a great improvement in regard to schools of art. In some places it is now realized that the school of art has functions and branches of study, which are necessary in these stressful days, which differ greatly from those of the early Victorian period when, by the energy and foresight of the late Prince Consort, schools of art were first established.

Unless the craftsman is brought under good art influence, his work will have an inferiority in style and character that will prevent its reaching the highest value.

It is gratifying to find that, in many of the schools, there is a general movement in the direction of strengthening the equipment necessary for efficient instruction.

I have endeavored to give you some general outline of the history of the Science and Art Department of the British government, and some general ideas as to the aim of the work, and I will now, having brought you up to the present day, ask your kind forbearance while I venture to state a few statistical notes on the work that has been done.

We spent £76,721 in 1902 on art education in England and Wales, being 13*s.* 10*d.* per student (110,852 students). Of these, 54,085 were in 232 schools of art, and 56,788 were in 2,123 art classes. We pay 19*s.* 4*d.* per student in art classes. We gave ten royal exhibitions (25*s.* a week for forty weeks for two years); twenty local scholarships (£20 a year for three years); five local exhibitions of £50, of which the Board of Education provides £25; 467 free studentships; 148 summer courses, with £3 allowance and return railway fare.

The national competition has been and is a powerful influence upon art instruction. It keeps up a condition of emulation and of wholesome rivalry between the various schools and classes, and causes the advanced students to put forth their utmost endeavors to distinguish themselves in the contest for medals and prizes. On the other hand, it may give rise to a dangerous tendency toward working in a set groove in various branches of work, e. g., when a certain type of composition, such as in decorative design, has received the approval of the examiners. In the last national competition, 5,422 works were selected; to these 5 gold, 80 silver, and 212 bronze medals, and 442 book prizes were awarded. A selection from the accepted works was sent to Belfast, Edinburgh, Newcastle, and Salford for public exhibition.

The Council of Advice for Art appointed by the government has expressed the opinion that facilities should be given to students in schools of art to carry out, or to see carried out, some of their own designs in the material for which they were designed, as this would show whether or not they were suitable. The council felt that nothing but harm could come from encouraging students to make designs, on paper or in plaster, without any knowledge of their suitability for execution in the material employed. The regulations have now been altered so that practice by students in design classes of craft methods for executing work in actual materials is recognized as a constituent part of a student's art training.

Endeavors are made to simplify and consolidate school work by making instruction in subjects of science and art (of a kind and amount to be determined by the general aims of the school) an integral part of the general education given to all pupils, rather than to encourage the teaching of a multitude of subjects to special sets of pupils.

As I have already indicated, it is felt that art, if properly taught, has a great educational value, altogether apart from the subject learned. It develops accuracy of observation, reasoning from effect to cause, a power of analysis, a love of the beautiful, a tenderness and susceptibility of mind, habits of neatness, an accurate workmanlike use of the hand; and, in addition, is of value in the teaching of science and other subjects.

I must express to you my thanks for having been permitted to address these few remarks on this very large educational question as we view it in England.

THE EDUCATIONAL INFLUENCE OF PUBLIC OUTDOOR ART

GEORGE E. GAY, DIRECTOR, EDUCATIONAL EXHIBIT OF MASSACHUSETTS AT THE LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

My theme concerns the architecture of public building and sculpture in public parks and streets in the single aspect of their educational influence. I am asked to say what part public outdoor art plays in public education.

In a general way, we may say, of course, that in many particulars it sets a standard for private art; that it creates ideals; that private dwellings will be in better form and will be ornamented in better taste because public buildings are more stately or more dignified or more beautiful, and because parks, lawns, and roadways contain the best specimens of the sculptor's art. The real in art and conduct is always the child of the ideal, and ideals are begotten of noble deeds and high achievement.

Architecture has a high moral significance that is reflected in public life. The tower that rises toward the skies is a perpetual call to high living.

Grace and beauty appeal to the best that is within us. Stateliness and dignity rebuke meanness and strife. "Let us build our lives as well," is the answer of the soul to hall and temple. The edifice that is adapted to its purpose calls to truth and honor. Repose in architecture provokes dignity in pose and bearing. Height shouts courage and hope. One cannot look downward in a cathedral. The mind refuses to dwell on the dust beneath the flags, and rises like the music from the choir to the towering arches above.

When sculptured ornament is added to architectural strength and repose, they become still more eloquent. Their voice is made sweet, and its carrying power becomes greater. The veriest clown takes off his cap and stands agape before a Corinthian column. As a discord in music adds beauty to the succeeding harmony, so ugliness in ornament may sometimes emphasize the beauty of a structure. The griffins in the cornice, bark they never so loud, are silenced by the voice of wall and roof.

Mural sculpture which portrays great historic events and the achievements of heroes is a challenge to noble endeavor; incites to patriotism, it may be, or to defense of home or honor, or even to martyrdom in a righteous cause.

Mural sculpture of another sort excites the poetic nature of the observer, for it gives pulse and rhythm to the currents which flow from wall and tower and column and pilaster. Hector bidding wife and boy farewell has sent many a man to the defense of his country; a dancing satyr has given new breath to thousands of weary men.

In Boston we spread the history of our Pilgrim ancestors on the walls of our buildings. Chicago places the life of Marquette in bold relief in the center of its busiest mart. St. Louis records in stone the generous deeds of its patron saint. We are better because the lives of these men are ever before us.

Statuary in parks and public squares has great value as an educator. It teaches history and biography. French's minute man tells the story of Concord and Lexington to a thousand pilgrims every year. DeSoto tells to every resident of the Mississippi valley the story of his march. Washington in scores of cities in America, Washington in the center of Paris, tells the story of successful rebellion against unrighteous power. Longfellow in a dark corner of Westminister Abbey is a beacon telling the story of America growing in culture and grace as well as in stature and power.

Sculpture teaches good government also; for it emphasizes statesmanship and civic progress. Webster still proclaims that the Union must be preserved. Lincoln still breaks the shackles from bondmen, white and black. And he who regretted that he had but one life to give his country while he lived has given a thousand lives to that country since his death. For sculpture embodies ideas. The lion of Venice, the eagle of Rome, the lily of France—what are they but the very hearts of nations? The Column of July, the Statue of Liberty, the Triumphal Arch—what are they but the prolonged shouts of victory over prostrate foes?

Some sculpture teaches only beauty; and beauty is sufficient excuse for being. What man but walks more erect as he sees in marble or bronze an artist's conception of Apollo? What woman but has more respect for the "human form divine," and tries to possess it, when she looks upon a sculptor's Venus or Juno?

It is well, therefore, that every city and hamlet in the land should place in its public places these instructors in history and good government, these models of beauty, these preachers of righteousness.

It is well that this beautiful park, as it gathers the nations from the corners of the world, should erect noble buildings for their use, should beautify and enrich them with the sculptor's chisel, and should place on buildings, on bridges, and on plazas their triumphs of representative art. Let us learn their lessons and gain inspiration and strength from their words.

In Boston we have just erected a noble monument to a noble man. On its base we have carved a noble motto: "A soldier in the army that kept the Union whole."

Teachers, we too are soldiers in an army. Let us labor to keep the Union whole.

EDUCATION FOR ARTISTIC HANDICRAFT IN SWEDEN

MR. CARL LIDMAN, EDUCATION DEPARTMENT, SWEDISH COMMISSION, LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

Ladies and Gentlemen:

I have not considered it proper to decline the honor of the invitation to speak on the subject in question on this occasion, and this because I am of the same opinion as the esteemed president, Mr. Hopkins, that education for artistic handicraft not only takes place at the institutions of which such education is a special aim, but that it constitutes, or ought to constitute, a part of education in general. I beg to remark that, being myself a teacher in the public schools of Stockholm, I intend to speak only of two subjects taught there, namely, sloyd and drawing, which I consider to be of special importance with regard to education for artistic handicraft.

In the countries of the North the light nights of the short summers are soon succeeded by long, dark winter evenings. The agricultural population cannot then work in the fields and meadows, but, in accordance with the custom of their forefathers, these people are obliged at such times to find employment within the four walls of their cottages. Here, in olden times, the members of each family—among this number the servants were also included—gathered readily around the stone hearth, upon which a warm bright fire of large logs blazed merrily, and, to the strains of a ballad or a hymn, or while listening to one of the many northern legends, their fingers were busied with some useful occupation. The men, for example, made spoons, ladles, benches, tables, and other articles necessary for farm work or for home, often ornamenting each object with simple and tasteful designs; while the women tended the spinning-wheel and the loom, or stitched some article of dress intended for their own use or that of the men. Such work, executed with simple aids of persons not belonging to any guild has, in Sweden for long ages, gone by the name of "sloyd" (Swedish *slöjd*).

But, in consequence of many co-operating causes, this skill in sloyd had by degrees begun to diminish, and, in some places, even to die out and disappear. Much of the work which in former ages had been executed in the homes of the peasantry was now taken up by the rising manufacturing industries. About thirty-five years ago the Swedish people began to see the danger of this, and that was the reason why they tried to take such measures as should reinstate the sloyd of their forefathers in the honorable position which is its proper due, and which it had formerly held.

Whether it be a question of spreading any new knowledge, any new kind of work, or of reviving that which is on the verge of extinction, we can, as is well known, go to work for the most part in two different ways. We can endeavor to influence either that part of the population which is already come to adult age, or that part which is still growing up; to influence either the generation that is, or the generation that will be.

The latter way will probably prove to be the surer one on the whole; for the mind of the child is, as we know, always more receptive than that of the mature man. Good schools, therefore, is the best gift any period can give to a future one.

At the same time that those who are striving for the revival of sloyd came to see that it was the child in its school age that they should endeavor to influence, the friends of an improved system of popular education began to have their eyes opened to the fact that sloyd was an educational means of the greatest value, well worth incorporating with the theoretical and practical subjects of instruction already adopted.

Resigned to, and received by, the schools, the sloyd question remained no longer a politico-economical one, but became rather a pedagogical one, and one of ever-increasing scope. The attempt to use the school in order to train sloyders was changed to the endeavor to use sloyd in order to educate the men and women of the future. The school in the service of sloyd was changed to sloyd in the service of the school. But this thought was by no means new. The history of pedagogy can show that, for centuries back, almost every pedagog who stood a head higher than the multitude endeavored to maintain the importance of bodily labor as a mighty means of education. Comenius, Francke, Locke, Rousseau, Basedow, Salzmann, Pestalozzi, Fröbel, are, as we know, stars of the first magnitude in the art of education, and all of them have given expression to the opinion that the training of the hand should proceed simultaneously with that of the head and the heart. But, as is well known, it was only in our own times that this thought was understood and realized to any very great extent.

Among the sloyd schools established during the period we have mentioned, that at Nääs was one of the earliest. Nääs is an estate situated about eighteen miles east of Gothenburg. This old property was thirty-five years ago in the possession of August Abrahamson, who had retired to the place in order to enjoy the fruits of an industrious life. Here, assisted by his nephew, the present administrator and director of the institution, Otto Salomon, he established in 1872 the Nääs sloyd school for boys, later on reorganized to Nääs Manual Training College, which is now a state institution, its main object being to educate teachers in pedagogic sloyd.

The courses in sloyd given at Nääs have been pursued with a special interest. At the close of 1903 the total number of students amounted to about five thousand, but a good many students have taken part in two or several courses. The actual number of individual students amounted to four thousand from thirty-five different countries; seventy-three of these students have come from the United States.

The instruction, at which attendance is compulsory, given during the courses is partly theoretical, partly practical. While the former includes lectures and discussions, the latter is chiefly represented by sloyd and drawing. The theoretical instruction during different courses has been concentrated

now upon one branch, now upon another, of that widely extensive subject, the pedagogics of sloyd.

The work in the sloyd-rooms forms a whole with the theoretical instruction, and is arranged as can be seen by the Swedish school exhibit. In arranging a series of models, the exercises entering into this kind of sloyd are made the basis for a gradual progression. This is a characteristic of the Nääs method; for by this means it has been found possible to maintain the demand made by the partakers in the course, that the work executed by them should be neat and exact. They have not been allowed to hand in incorrect or half-done work; and even if, as may be, more than one student, unaccustomed to such neatness and exactness, has complained of the "pedantic way" in which the work of the students has been examined, the complaints have been received with equanimity. For it is undoubtedly owing to the maintenance of these strict requirements that it has been possible to open the way to the schools for a system of sloyd instruction which laid weight, not upon the amount, but upon the quality, of the work executed.

The sloyd instruction according to the Nääs system is introduced into almost all of the Swedish common schools. One of the main objects of this instruction is to train the eye of the pupil to discern and the hand to execute. Special weight is laid upon the development of the eye and the sense of form. Among the models there are many which are termed "modeling models"—form models—and which require a freer employment of the tools. According to this the fundamental tool is the knife. One of the principles is that sloyd articles should be satisfactory from an æsthetic point of view.

Those who desire to get more information in regard to Swedish pedagogic sloyd I beg to refer to a pamphlet, obtainable in the Swedish School Exhibit, entitled *The August Abrahamson Foundation Nääs,* and edited by Otto Salomon. With regard to the work in the schools that have for their special object education for artistic handicraft, I beg to call attention to the Swedish School Exhibit, where the Technical School of Stockholm exhibits work of its students, and especially to that section of the school called "The Higher Art Industrial School."

Regarding the teaching of drawing: I have had opportunity to observe the school exhibits of the United States; that in this country the old method in the teaching of drawing, to let the pupils be occupied by abstract drawings, has been abandoned; and that instead thereof drawing from actual objects has been introduced. The very interesting address delivered by Dr. Bahlsen in this room last Tuesday informed us that Germany also has adopted this method with great advantage. I have only to remark that such a reform has been undertaken in Sweden; i. e., copying from drawings has been displaced by drawing from actual objects, selected, of course, according to certain rules.

The fundamental principles are: Instruction in drawing should be chiefly based upon the immediate rendering of characteristic form from the child's surroundings, both in nature and in daily life. Development of the ability of

the child to observe independently, to understand and to reproduce an object, both as to form and to color, accompanies the instruction in other subjects. How these principles are enforced is illustrated by models for drawing and pupils' work that are to be seen in the Swedish School Exhibit.

At the same time that teaching of drawing as arranged in accordance with the aforesaid principles receives greater practical importance, it also gets more interesting and is in a very high degree instrumental in developing the pupil's artistic inclinations.

But it is not only by instruction in drawing and sloyd that the child's sense of art should be developed. One must also try to influence the child with regard to this by other means.

Before closing, I wish briefly to mention some points of view to which attention has been paid in our country. When a new schoolhouse is to be built, the best possible architect is chosen in order that the building, altho it be very plain, should by its proportions have an educating influence. In the choice of colors for walls and of school furniture this requirement also ought to be observed. The walls of the schoolhouse ought to be decorated, if possible, by original works of art, or, for lack of such, by good reproductions. In order to help our different kinds of schools in this effort, a society has been founded that has frescoes painted by eminent artists, and valuable reproductions, bought in order to present them to the schools. A sketch of such a fresco by the well-known Swedish painter, Carl Larsson, is to be seen in our art exhibit.

The teacher ought to take the children to collections of art, where such are to be found, and he ought to open their eyes to the beauty of nature in the school garden and on excursions. By doing one's best to give the children beautiful surroundings, by teaching them to observe and to reflect on these, and to make, themselves, beautiful works, will result, no doubt, in a more refined taste and an improvement in the artistic handicraft of the nation.

ART EDUCATION FOR THE AMERICAN PEOPLE, AS SHOWN AT THE LOUISIANA PURCHASE EXPOSITION IN THE NORMAL SCHOOLS, ART SCHOOLS, AND ART HANDICRAFT

MISS ANNA VANDALAINE HENKEL, FIRST ASSISTANT SUPERVISOR OF DRAWING, PUBLIC SCHOOLS, ST. LOUIS, MO.

So large a subject for a few minutes' talk is indeed appalling, and so I shall try to give briefly only a few of the impressions given me by my visits to the Exposition during the past few weeks.

Gradually the idea that we Americans are not an artistic people will grow fainter as we grow not only to love and appreciate art and beauty, but also to be creators and producers of artistic and beautiful things. The opportunity

to see such productions from many countries that is given to the great masses of our people by a world's fair such as was held at Chicago eleven years ago, and is now with us in St. Louis, is one great factor in creating the appreciation of art that must exist before the second stage can be attained, the desire to achieve artistic production.

A few years ago the term "art" suggested to the majority of people a vision of "oil paintings," done generally by a maiden aunt or deceased grandfather, who, one would hear announced with great pride, had never taken a lesson. I have vivid recollections of being called upon to admire these works of art, and of inward struggles to refrain from suggesting that some good instruction might not have been such a disastrous thing after all. At that time sculpture also was sometimes suggested by the term "art;" but surely only sculpture and painting.

I shall frankly confess that, with this few minutes' talk in view, I have recently become a listener to conversations not intended for me—conversations of people visiting the Exposition, as I have examined the pictures in the Palace of Fine Arts, or looked at the costumes of the Japanese of a thousand years ago as shown in the central pavillion in the lovely little Japanese garden on the hill, or listened to the music while I rested before continuing my search for the beautiful or interesting. I find that there is a much wider understanding of the term "art" than existed eleven years ago; that the term is no longer applied only to painting and sculpture, but that in many minds it is reclaiming its broader and truer meaning.

There are several causes for this; several conditions have worked this result.

First I shall place the influence of the great expositions beginning back in 1876 with the Centennial at Philadelphia. Of that my only recollection is of hearing described a wonderful piece of sculpture in butter—a butter cow. But I have also the lasting pleasure that some quaint little Japanese paintings brought from the Centennial afforded me all thru my childhood. I think we still have the butter cow and the Japanese paintings, but now the order could be reversed and the paintings placed first.

Then came the Chicago fair, and with it to multitudes, like myself, their first opportunity to see really fine works of art. As the weeks advanced, the crowds in the art galleries grew greater and greater.

At that time the development of art appreciation was doubtless with many in its first stage—the stage where it is the story told by the picture that holds the attention, and brings the visitor again and again before certain pictures. That no other picture at the Chicago fair attracted such crowds as did "Breaking Home Ties" shows this. It was the appeal to human experience that drew the people, not the understanding of art.

In watching the people in the Palace of Fine Arts in St. Louis, I am strongly impressed by the growth and development that have taken place in eleven years. This is surely one of the immediate results of our great expositions. To be sure, we still have the man from Missouri who was heard to say the

other day that the exhibition of pictures at the St. Louis fair is "fine, fine, remarkably fine;" why, he spent two hours and a half in the picture galleries, "yes, two hours and a half," and he considered the time well spent. This gentleman's interesting statement does not, however, affect the truth of the great growth along these lines.

The second factor that is contributing to this greater understanding is the work in our public schools. I have not been asked to speak about the public schools, but I cannot leave them out. It is comparatively few times that one is asked now why art education is undertaken in our public schools—schools educating pupils from every imaginable and unimaginable sort of home in this land of ours. The question, quite general only a few years ago, about whether the aim is to make professional artists of the pupils is a rare one, almost as rare as whether we expect the pupils to follow a literary career because they are required to study English and composition. Intelligent people quite generally acknowledge the right that art education has in the course of study in our public schools.

I have had a good deal of pleasure recently in listening to the replies of children of fifth and sixth grades when I asked them about the aim of certain exercises they were required to do. For example: Why paint plant forms or sketch them with pencil? Why make designs of any sort? In only a few cases did I receive the reply that the object was to make artists or designers of them. To make them quick to see, to enjoy, to become skilful with their fingers—many were the answers, and the general trend of them was indeed the real aim—education—tho the answers were given in childlike language. If this be true of quite young children, how is it with the pupils in our normal school and our art schools, and with that still larger school, the people generally?

The solving of the problem of art education for the American people is not so slow as it seems at first, and the helps are many. Many are to be found here in this St. Louis Exposition. Those immediately concerned in education are finding an immense amount of help in the Education and Social Economy Building.

I am glad that all these exhibits are under one roof, making it possible to see and compare our ways with those of other countries. We find that in Japan there are normal schools just as there are in America; art schools, just as in America. So in other countries. In talking to a native of India a few days ago, whose pure English was a great pleasure to me, I found that it takes sixteen years to complete the course in India. So it does with us, when we take the eight years before the high school, four in the high school, and four years in college.

We find upon comparing that the ideas of modern education in the different countries are not so different—only the special ways of carrying them out. Our friends from across the different great waters seldom believe in educating the boys and the girls together. But the more important point all agree upon, and that is, that they all be educated.

For the methods of the schools we may study the exhibits in the Education Building; also for the methods of the art schools. For the results of those methods in the first instance we must study the people; in the second, we may visit the Palace of Fine Arts.

In studying the people, what are we sure to discover? That they are intensely interested in all sorts of handicraft, and in processes. It is a curious and interesting fact that, along with greater perfection of machinery and machine-made things, has come a revival of handicraft and hand-made things. The old order is reversed.

In these hand-made things, whatever they may be, do we find that subtle something we call art. Of the many buildings it has been my privilege to visit at the Fair, in not one have I found a lack of opportunity to study art in this broader sense. In the "Liberal Arts," the "Manufactures," the "Varied Industries," what manifold opportunities! What chaste designs in furniture, what wonderful work in textiles, what in carving, in metal-work, in leather! It is quite impossible to enumerate the things worthy of attention. How are these things educational? Contact with excellence in any form whatever, if it beget the desire to make our own efforts more worthy, is sufficient explanation. Pure joy in realizing beauty, and the effort to attain it in a great or a small way, is worth all effort.

Going from the great palaces of exhibits to the buildings of the various countries, the same opportunities are unfolded.

I have seen only a few of the state buildings, but in those few I have found much to enjoy and to study. New York is so dignified and harmonious. Mississippi shows a reproduction of the old home of Jefferson Davis, Beau Voir. In it are many things of historical interest. Indiana has a delightful state building. The coloring, the furniture, the arrangement thruout are unusually harmonious and satisfying. The paintings of the Hoosier School of Artists—Steele, Forsyth, Adams, Stark, and many others—are well arranged, and prove that Indiana has an unusual number of strong painters. The collection of the bits of original manuscript of their writers shows how many authors Indiana has produced.

Among the achievements of the different countries, what could be more exquisite than the Japanese garden? To go to the top of the hill and look down over the restful stretch of green thru which runs the little stream winding in and out, as Nature herself would have made it, and in that stream the large irregular stepping-stones, the masses of beautiful Japanese iris with their lavender and purple blossoms and long straight leaves casting their lovely reflections in the water, convinces one of the perfection that may be attained thru art. Could we not take some hints about gardening? Have not the Japanese themselves shown in this very spot the superiority of that natural, irregular arrangement over the set beds of regular shapes? We have only to consider the flower-bed at the top of the hill, which is a crescent, and not half so delightful as the iris in the pool below.

Now, to consider for a moment the exhibits in the Palace of Fine Arts. I must confess in the beginning that it has been impossible for me to visit more than Germany, France, Great Britain, Canada, Sweden, Holland, and to take one brief run thru the United States section. In every place there was much that held me with greatest interest.

In the German exhibit the portraits by Lenbach stand out from all else in my mind. In the French exhibit the superb work in metal and leather by M. de Lignereaux can be seen in the cases. Every design has a symbolic meaning, and in it all one feels the touch of the artist profoundly absorbed in his art, combined with perfect workmanship. Look at the beautiful clock, the design the pine with its cones, the falling pine needles standing for the passing of the moments. Carl Larsson's interesting work is to be found in the Swedish exhibit.

The British section contains the work of Farquharson—night scenes and snow scenes with sheep. In this section look at the beautiful books in the cases. To me the work of Great Britain in books and bookbinding, illumination, and designs for textiles is more admirable than the pictures. By this comment I do not mean that there is not a wealth of material to study, to enjoy, to assimilate.

The Dutch section has filled me with deepest pleasure. Josef and Isaac Israels, Blommers, Tromp, Haverman, Schwartz, and many others have I looked at, not only once or twice, but many times. The deep harmonious color, the beautiful composition, the subjects, and the technique are, every one, sources of interest and pleasure.

Of the United States exhibit I shall say nothing, but it is only because of that one hasty visit, not because there is nothing to see and to make one's own.

In all the exhibits of the Palace of Fine Arts there are cases showing pottery—exquisite pottery—of beautiful form and entrancing color and decoration; there are examples of textiles, baskets, metal, furniture; wonderful examples of bookbinding, etc.

At the World's Fair in Chicago there were only painting and sculpture in the Fine Arts Building. That all these other things are shown in the Palace of Fine Arts at this time seems to me to indicate that we are surely growing to appreciate the broadening of the term "art." We are only going back to the understanding of art as it was known years and years ago, when the craftsmen were also artists.

If our study of the exhibits at the Louisiana Purchase Exposition leads to this knowledge of the deeper, broader meaning of art, then will the American nation become in the future a really artistic nation. Then will the integrity of our work be the one thing for which we shall care. Integrity in our work means integrity in character. If general education, which in the future must include art education, does not mean the development of integrity of character, then indeed are we far from our ideals.

DEPARTMENT OF MUSIC EDUCATION

SECRETARY'S MINUTES

FIRST SESSION.—Wednesday, June 29, 1904

The department met in Recital Hall, adjoining Festival Hall, on the grounds of the Universal Exposition.

Vice-President William A. Wetzell opened the meeting at 1:30 P. M. with a brief memorial of Sterrie A. Weaver, president of the department, who died in April, 1904.

A piano solo by Ernest R. Kroeger was heard with much pleasure.

Vice-President Wetzell then delivered the annual address, and was followed by a paper by Mrs. Marie Burt Parr, supervisor of music of primary grades, Cleveland, O., on "Primary Music Methods."

P. C. Hayden, of Iowa, moved that the chairman appoint a nominating committee of three. The motion was seconded and carried, and the chair appointed as such committee Miss Anna M. Allen, of Peoria, Ill.; Mrs. F. E. Clark, of Milwaukee, Wis.; and Herbert Griggs, of Denver, Colo.

P. C. Hayden stated that there were a number of important committee reports to be heard at this session, and moved that when adjournment was taken it be to meet at 1:30 Thursday afternoon. The motion was seconded and carried.

Papers were read as follows:

"Rote-Singing and its Proper Place in Public Schools—Practice versus Theory," by W. A. Hodgdon, Supervisor of Music, St. Louis, Mo.

"Music in Public Schools a Means of Culture in the Community," by Miss Lucy Robinson, supervisor of music, Wheeling, W. Va.

Adjournment was taken as previously voted.

SECOND SESSION.—Thursday, June 30

The department was called to order in Recital Hall at 1:30 P. M.; Vice-President Wetzell in the chair.

The report of the Committee of Three appointed at the last annual session to co-operate with the committee of the New England Educational League, consisting of Benjamin Jepson, of New Haven, Conn., C. A. Fullerton, of Cedar Falls, Ia., and Miss Julia E. Crane, of Potsdam, N. Y., was distributed.

P. C. Hayden moved that the report be adopted by this meeting. The motion was seconded, and, after some discussion in regard to the manner of giving credits, was adopted.

Mr. Wetzell then called on Mr. Tapper, chairman of the committee appointed at Minneapolis, and continued at Boston, on the "proper literary and musical training of the supervisor and of the musical training grade teacher." The report was read by him, as also a letter from Samuel W. Cole, of Brookline, Mass., a member of the committee. George E. Krinbill, of Dixon, Ill., and Arnold J. Gantvoort, of Cincinnati, O., members of the committee, also presented their views on the question.

Mr. Hayden moved that the report be approved by this department, as a report of progress, and that the committee, as named above, be continued for another year to complete the same.

Mrs. F. E. Clark moved to amend by adding a clause that the committee be requested to embody in its completed report next year a plan for providing for a board of examiners and for carrying out in detail the suggestions of the report. The amendment was agreed to. A. J. Gantvoort, of Cincinnati, O., moved, as a further amendment to Mr. Hayden's motion, that the report include high-school or normal-school music education or its equivalent. Carried.

The motion of Mr. Hayden as amended was then carried.

The committee which was continued by the motion consists of:

Thomas Tapper, Boston, Mass.
A. J. Gantvoort, Cincinnati, O.
O. T. Corson, Columbus, O.
Samuel W. Cole, Brookline, Mass.
George E. Krinbill, Dixon, Ill.

Chairman Wetzell called for the report of the Committee of Ten, and Mr. Hayden, the chairman, appointed to fill the vacancy caused by the death of Sterrie A. Weaver, made a partial report covering the first, second, and third grades only.

W. A. Hodgdon, of St. Louis, Mo., moved that the committee be continued to next year in order to complete its report. The motion was seconded and carried. This committee is composed as follows:

P. C. Hayden, Keokuk, Ia.
B. C. Davis, Atlanta, Ga.
Miss Anna M. Allen, Peoria, Ill.
E. B. Birge, Indianapolis, Ind
Miss Estelle Carpenter, San Francisco, Cal.
F. E. Howard, Bridgeport, Conn.
A. J. Gantvoort, Cincinnati, O.
C. A. Fullerton, Cedar Falls, Ia.
Miss Julia E. Crane, Potsdam, N. Y.

As these committee reports were incomplete, it was ordered that they be not printed.

A. J. Gantvoort moved that a committee of three, of which P. C. Hayden should be chairman, be appointed by the chair to prepare a memorial of the late Sterrie A. Weaver and of his work in this department, and that the same be published in the *School Music Monthly*. The motion was seconded and carried, and the chair appointed as members of such committee Mr. Gantvoort and Miss Hughes.

The meeting adjourned to Friday afternoon at 1:30 P. M.

THIRD SESSION.—FRIDAY, JULY 1

The program was opened in Recital Hall at 1:30 P. M. by a violin solo by Master Frederick Heizer, of Sioux City, Ia.

Mr. John Towers spoke briefly on the care of boys' voices.

Master Harrison Brown, of Sioux City, Ia., rendered a vocal solo, with violin obligato, by Master Heizer.

The following papers were read:

"Methods *versus* Results," by W. H. Pommer, supervisor of music, St. Louis, Mo.

"Public-School Music in its Relation to the Community and the Church," by N. Coe Stewart, of New York city.

"The Public-School Music Supervisor in His Relations to the Professional Musicians and the Professional Educators," by Frank Nagel, Highland Park College, Des Moines, Ia.

Mr. Hayden read a letter from W. Scott, secretary of the New England Education League, and moved that the co-operative committee which was appointed last year be continued for another year. The motion was seconded and carried. Following is the committee:

Benjamin Jepson, New Haven, Conn.
C. A. Fullerton, Cedar Falls, Ia.
Miss Julia E. Crane, Potsdam, N. Y.

B. C. Davis, of Atlanta, Ga., moved that this department request the Secretary of the National Educational Association to publish in the volume of *Proceedings* the report

of said committee. The motion was seconded and carried. The report will be found among the papers and discussions of the department.

Mr. Hayden called up a motion which was last year referred to this convention, having been presented by Benjamin Jepson, of New Haven, Conn., seconded by T. L. Roberts, of Utica, N. Y., making the *School Music Monthly* the official organ of this department.

A motion by Mr. Davis to take said motion from the table for discussion was seconded and carried, and thereupon, upon Mr. Davis' motion, duly seconded, the *School Music Monthly* was adopted as the official organ of this department of the National Educational Association.

Mr. Hayden, as chairman of the committee on memorial of the late Sterrie A. Weaver, then presented a report, which was, upon motion, adopted, as follows:

Resolved, That this department adopt the tribute paid to Mr. Sterrie A. Weaver, our deceased president, by President William A. Wetzell, as an expression of our feelings of regard and esteem.

Resolved, That the tribute referred to, be printed in our minutes, and a copy of the same be sent to Mr. Weaver's family.

EXTRACT FROM THE PRESIDENT'S ADDRESS

It is with feelings of profound sadness that I assume the duties and responsibilities of presiding officer of the Music Department of the National Educational Association. Little did I think, one year ago, that I should be called upon to stand in the place of one who had given his whole life to the cause of school music. I wish I had that command of language which would enable me to pay a fitting tribute to the memory of the man who was twice honored with the presidency of this department. But a sorrowing heart cannot always express in words the depth of its grief, nor do full justice to a life so nobly lived and so generously sacrificed. But we know this "the silver cord has been loosed, the golden bowl has been broken," and the spirit of Sterrie A. Weaver has taken its flight to Him who gave it. With uncovered heads and uplifted faces we reverently say, "Thy will be done."

In the death of Mr. Weaver this department lost one of its truest friends and advocates, and an indefatigable worker in the cause of school music. He came to us with a message which he delivered faithfully, fearlessly, and faultlessly. He was a man with an idea, to the development of which he gave his profoundest thought, the total of his physical and mental energy, and finally his life. There are thousands thruout this broad land who revere, and will ever hold in grateful remembrance, the name of this man; because from him they received that equipment and inspiration which is leading them to eminent success. He was unselfish in his nature, generous to a fault, and helpful and inspiring at all times, always giving more attention to the welfare of others than to his own. He never knew when he had reached the limit of his powers of endurance, and thus labored on and on until the spark of life went out. His death came suddenly. On Monday preceding his death he was found in his accustomed place, enthusiastically at work. On Wednesday he died. During his delirious moments on the night preceding his death, his conversation related wholly to the Boston meeting of last year, and the sight-reading exhibition given by his class of boys and girls from Torrington, Conn. He even sang some of the exercises they sang at the time, and expressed great pleasure at their signal success.

But what I have said, and all that I may be able to say, will not add one beam to the halo of glory that surrounds his name. The good he has done will live on and on thru the years yet to come.

The report of the Committee on Nominations was presented by Mrs. Clark, as follows:

For *President*—William A. Wetzell, Salt Lake City, Utah.
For *Vice-President*—Mrs. Marie Burt Parr, Cleveland, O.
For *Secretary*—P. C. Hayden, Keokuk, Ia.

Upon motion of Mr. Gantvoort, duly seconded, the report of the committee was adopted, and the secretary was instructed to cast the ballot of this section for said officers. The ballot being so cast, the nominees were declared elected.

B. C. Davis, of Atlanta, Ga., suggested the desirability of so arranging the program in the future as to give opportunity for discussion upon the papers presented.

President Wetzell then declared the department adjourned until the next annual meeting.

P. C. HAYDEN, *Secretary*.

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

WILLIAM A. WETZELL, SUPERVISOR OF MUSIC, CITY SCHOOLS, SALT LAKE CITY, UTAH

It is with feelings of profound sadness that I assume the duties and responsibilities of presiding officer of the Music Department of the National Educational Association. Little did I think, one year ago, that I should be called upon to stand in the place of one who had given his whole life to the cause of school music. I wish I had that command of language which would enable me to pay a fitting tribute to the memory of the man who was twice honored with the presidency of this department. But a sorrowing heart cannot always express in words the depth of its grief, nor do full justice to a life so nobly lived and so generously sacrificed. But this we know: "the silver cord has been loosed, the golden bowl has been broken," and the spirit of Sterrie A. Weaver has taken its flight to Him who gave it. With uncovered heads and uplifted faces we reverently say, "Thy will be done."

In the death of Mr. Weaver this department has lost one of its truest friends and advocates, and an indefatigable worker in the cause of school music. He came to us with a message which he delivered faithfully, fearlessly, and faultlessly. He was a man with an idea, to the development of which he gave his profoundest thought, the total of his physical and mental energy, and finally his life. There are thousands thruout this broad land who revere, and will ever hold in grateful remembrance, the name of this man, because from him they received that equipment and inspiration which is leading them to eminent success. He was unselfish in his nature, generous to a fault, and helpful and inspiring at all times, always giving more attention to the welfare of others than to his own. He never knew when he had reached the limit of his powers of endurance, and thus labored on and on until the spark of life went out. His death came suddenly. On the Monday preceding his death he was found in his accustomed place, enthusiastically at work. On Wednesday he died. During his delirious moments on the night preceding his death, his conversation related wholly to the Boston meeting of last year, and the sight-reading exhibition given by his class of boys and girls from Torrington, Conn. He even sang some of the exercises they sang at that time, and expressed great pleasure at their signal success. But what I have said and all that I may be able to say, will not add one beam to the halo of glory that surrounds his name. The good he has done will live on and on thru the years yet to come.

Before we proceed with the regular order of business, I desire to call your attention to a few matters which I deem of vital importance to the success of this meeting and to the standing of our department. We have gathered here from various sections of our country to participate in discussions pertaining

to the advancement of music work in our schools, both public and private. We are here for a purpose, and that purpose is to arouse an interest and enthusiasm in this work, which will not die with the adjournment of this meeting. We are here to devise ways and means of improving the work and adding to its efficiency.

I have attended many of these meetings, and it seems to me that in all our discussions we have lost sight of the real subject of all true teaching—and that is the child. I have listened to many excellent papers and discussions on music in the high school, music in the colleges, and music in universities; but we have heard little on that phase of our work which I deem more important than all this—more important because of its fundamental nature—music in the primary grades. So much depends upon a right beginning. The music hope of America lies in the proper, systematic, and pedagogical training of the children. I am an enthusiastic advocate of the strengthening of the work in the primary grades of our public schools; and I hope that at our next annual meeting this subject will receive that attention to which it is justly entitled. I have had correspondence with more than twenty of the leading school-music supervisors in the United States, and they unanimously agree with me that the matter of elementary music-training has not received due attention.

Then, have we not in our discussions lost sight of the practical side of our work? Have we given to the average supervisor that which he can take to the average grade teacher for immediate use in the schoolroom? Do not large responsibilities rest upon us at this point? How can we hope to make our music in the advanced grades of the schools what it should be, when we fail to do that fundamental work which shall constitute a good foundation for this more advanced work? No firm structure can be permanently erected upon a flimsy foundation. We can never hope to have an American type of music so long as we fail to give attention to the essential beginnings. Germany owes her musical progress and standing today to the thoro, fundamental work done with her children in the kindergarten and primary schools.

In our deliberations we talk nicely and discuss learnedly, but with it all there is a lack of unanimity of purpose—a lack of concert of action. We have but little planned to do. We might talk forever of the cutting quality of the grindstone and its power to put an edge on an axe, but this value of the grindstone will never be made manifest until power is applied and the grindstone is made to revolve. Or, if you please, a crank must be attached. I have a good deal of admiration for a crank. It—or he or she, as the case may be—is a means of communicating power. It—or he or she—makes things go.

We have material enough in this department to put an edge on musical matters in the United States, if we can only get that material to revolve. We need a crank. What a power this department may become in establishing an American type of music, or in starting a movement which will result in this much-desired end! By implication I have said that this department is not at this time a very strong factor in the musical progress of America. I hope

I offend no one when I say this, but I believe I am right. But, I am asked, what shall we do? Well, a committee has been appointed to prepare or suggest a course of study for the music supervisors of America. This committee will make a report at this annual meeting. I call this a good beginning. Another committee was appointed one year ago to suggest a uniform course of study in music for the public schools. I call this an excellent addition to the before mentioned good beginning. Now, when these reports are made we shall have the material revolving. Can we keep it moving until something is accomplished?

Let us look about for the weak points in our work, and make an effort to strengthen these weak points; let us make an effort to overcome those obstacles against which we have to contend in the preparation of the average grade teacher. What can be done to make her work more efficient? What can be done to make the supervisor more helpful to her? Should the work of the supervisor and his teachers be simply that of giving elementary musical training? Is it not the province of these to create within the hearts and minds of the children an insatiable desire for more advanced work? Are the local musicians always in sympathy with the work of the supervisor and grade teachers? Cannot something be done to impress upon the mind of the local musician that the work done in the public schools is fundamental—simply supplementary to the work of the studio teacher? Can it not be shown to them that it is possible for the work to be so efficiently done that the drudgery necessarily attending the first few lessons of the child in the studio will be eliminated; that the work will have been carried on to such an extent that the professional music teacher need give attention only to the technical part of musical training? Can we not make greater efforts to impress upon the minds of the patrons of the public schools and the general public the importance of musical training in the schools? I believe it is possible for us, if we are of one mind, and will enthusiastically take hold of the matter, to bring about a wonderful change in the attitude toward this subject, and that this may be done in a relatively short time.

All great reformations have been brought about thru energetic and enthusiastic efforts, backed by an intelligent purpose. I stand for our country and all that is good in it; but if what we have is not as good as it ought to be, then I stand for and with those who say, "Let us make it better." That something must be done is apparent to all thinking people. We have reached a critical period in this work of the public schools. The time has come when we must put ourselves under our work and lift it up to the view of an intelligent public, that they may render judgment as to whether our subject is entitled to recognition and encouragement or not. If it is not, then it is our fault—we must make it better. If it is entitled to recognition, we must so present our claims to this gazing public that they may be compelled to recognize and encourage us.

I trust that in our discussions we will confine ourselves closely to the subject presented in the papers at these meetings, and that we may allow nothing

to come up which will detract our minds from the serious matters which we have to consider at this time. Let us eliminate all unprofitable discussions concerning matters which are foreign to our cause. It has been charged that this department is absolutely controlled by book-publishing interests. I think this is an error, for I know of no such dominating influences since I became associated with the department as an official. I do not desire to rule arbitrarily, but I must say at this time, if the subject is presented, I will declare it wholly out of order. I can not do otherwise and be true to the cause I represent.

I desire that you shall give full credit to Mr. P. C. Hayden, our secretary, for the preparation and arrangement of the program which will be presented to you during this meeting. At the time of Mr. Weaver's death Mr. Hayden was giving him all the assistance he could in the preparation of the program, and, since he had the matter well in hand, I requested him to continue until he had completed the same. We have men and women upon the program of national reputation, who will read papers to us which will give us food for much serious thought and reflection.

PRIMARY MUSIC METHODS

MRS. MARIE BURT PARR, SUPERVISOR OF MUSIC IN PRIMARY GRADES, CLEVELAND, O.

The technical work of the primary grades consists of:

a) Voice-building and placing of tone.
b) Rhythm.
c) Audition and tone relationship.
d) Staff notation.
e) Invention.

Proceeding upon the theory that the child must sing either correctly or incorrectly, we first give our attention to placing the tone.

The most psychological definition of voice I have seen is given by Dr. Emerson, president of the Emerson College of Oratory: "The human voice is that sound, reinforced by the resonant chambers, which reports the physical and mental states of man." He further states: "The voice is educated thru inducing right states of mind while using it."

The province of the teacher is to secure to the child the environment desirable to vocal expression. The voice will express physical condition and mental activity, and the latter is both intellectual and emotional.

Let us first discuss the physical condition. There are four chambers of resonance—the trachea, the pharynx, the nares, and the mouth. In order to produce a clear, ringing tone, all these cavities must be perfectly free and unobstructed. We accomplish this by inducing right states of mind in the child.

The most important factor is the control of the breath. To secure deep inspiration of breath, we direct the mind of the child to the beautiful rose, and

he inhales its odor, thereby expanding his lungs freely. The degree of freedom will be commensurate with the abandon of enjoyment he yields to the sense of smell. If we should ask a roomful of children to "take a deep breath," we should see most of them swell up like little toads—lips compressed, eyes starting from the sockets, every muscle perfectly rigid. But by inducing a right state of mind the physical becomes the free agent we desire.

The first vocal sound given is the imitation of the buzzing of the bees; and the pupil is led gradually and with cumulative interest, until the free, open tone is given, calling into play all the chambers of resonance. To vitalize all the air in the lungs, we have the children play that they are bees, using the tone about middle C, which is as low as most little children can easily vocalize. Many illustrations can vary the play and secure placing of tone. You will notice that, in buzzing, the teeth are together, but the lips are parted.

Now use the humming-bird for your example and hum on the letter *m*, letting the lips be slightly parted and perfectly relaxed. If done correctly, the vibration will fairly tickle the lips. Then prolong the sound to a syllable—"moo;" let the children play they are "bossys" or "moos." In case any realistic boy should bellow his "moo," let the teacher pretend fright at the cross cow.

Another word equally effective is "no." Let the *n* be the swirling string of a sling, and the *o* the round pebble which is cast.

But few English words close with an open vowel. The children must learn to sing thru the consonants which impede the tone.

Choose "nōm" for the first complete word. Let the children play it means "no ma'am," and ask them a question which they will answer by "nom," vocalizing and prolonging the *n* and *m*.

The complete phrase.—Having learned to vocalize and control the breath, and to vocalize every element of a complete word, the next step is phrasing.

In reading, a phrase is broken if the thought is interrupted; in singing, the phrase is broken if the breath column is interrupted. The consonants which close most of our words would cut off the breath column if we did not exercise care and learn to preserve uninterrupted flow. Take first a short phrase of three words—use the tones do, mi, do on the syllable "la." This is comparatively easy, for the *l* is liquid and the vowel open. Then substitute the syllables "do," "mi," "do." This is a little more difficult. Be sure the *m* of "mi" is vocalized. Then use the words "good morning" to the same tone.

Sometimes, in order to keep the breath column uninterrupted, I have drawn a circle on the blackboard thus:

and had the children sing while I traced it, and then had them use *their* hands in tracing an imaginary circle. Gradually increase the length of the phrase until it consists of five or six tones.

Too much emphasis cannot be given to beautiful enunciation. Every vowel has more than one quality, *a* leading with eight. "The lips are the secret springs of articulation." If they are in the right position, the other

articulating organs will follow. Have a child occasionally give a sentence inaudibly, and let the others guess what he has said. This will secure beautiful and accurate labial form.

Rhythm.—Rhythm is primarily a physiological sense. In the beginning of music, rhythm found its first expression in the dances of the earliest people—the war-dance, etc. After a rhythm was established it was accompanied by a sort of drone broken by occasional shouts. From this drone the chant was evolved, and last of all came melody.

Rhythm is to music what symmetry is to sculpture. It is true that mathematics enters into each. But primarily one depends on the sense of hearing, the other on the sense of sight.

First we must give the child actual experience of rhythm thru his active agent of perception, the ear. In order to form this sense thru the ear, we must use song as the basis of instruction. The child must be led to feel the balance and proportion which rhythm gives to music. In teaching rote songs, the teacher, after singing the whole song to the children, should teach it *one phrase at a time.* Thus the children unconsciously learn to feel the rhythmic balance, as well as to breathe at the end of a phrase. If there is an instrument available, have the children do things to music. We want them to feel the pulse of the rhythm, until the voluntary muscles long to respond to its swing. They may march, drum—yes, even draw pictures illustrative of the songs, while they sing them. When the feeling for rhythm is well established, we call attention to the regular recurrence of the weak and strong tones, taking a single phrase of a song or melody to illustrate. The children of the first grade should by the spring term be able to tell, after hearing any melody, whether it is written in two-part or three-part measure. To the ear all music moves in two's and three's, and all other movements are compounds of these two forms.

Rhythm cards are a valuable aid to the study of time. The children of the second grade learn the symbols of relative tone-lengths (the notes and their values), and in the spring term take up staff notation, audition, and tone-relationship. A prominent educator said in my hearing that the best first reader for a child was one that contained the words of his own working vocabulary. Every normal child has a speaking vocabulary on entering school; but it is most unusual for him to have a singing vocabulary. Many children have apparently no musical ear. This leads to the consideration of the monotone.

The sense of touch is most highly developed in the tips of the fingers and the point of the tongue. There the two points of a compass will instantly be detected as two points, even tho close together. The sense is least developed between the shoulders, where the points tipped with cork must be an inch apart before the nerves will detect the presence of two points. This fact gives the best analogy to the ear of the monotone. He has no perception of melody. His ear is so little sensitive to pitch that he cannot distinguish

between one and two of the scale. But let us treat the ear as we did the sense of touch in the shoulders—move the tones farther apart. Let the teacher sing 1 and 8. If the pupil's perception of pitch be very dull, he will perhaps strive to imitate by singing the second tone on the same pitch, but louder. This is a distinct gain. Try again. This time he may sing 1 and 3, or 1 and 5. He now distinguishes between high and low pitch. When he has done his best toward the second tone, change the model. Sing 1 and 5. He will probably sing 1 and 4, or 3. Usually he will learn the tonic chord, and the octave, 1, 3, 5, and 8, first, and will also learn to sing the descending scale before the ascending scale. Sometimes he will learn to sing 1, 2, 3, 4, 5, 8, and then descend the scale. Very seldom will he learn so complicated a combination of tones as to sing a song during the first year; but if he learns the rhythm of the songs and certain parts of them, he should be permitted to sing often. As he learns thru hearing, he must listen much. Nothing so vitiates the ear as to sing constantly out of tune. Care should be taken not to embarrass a child until he feels that he is "different from the others." At the same time the teacher should bear in mind that a monotone will "put others out." For this reason change either his seat or that of those nearest him during the singing lesson, lest he, like the decayed apple in the barrel, soon corrupt those about him.

Songs which contain the tonic chord, as various bugle songs, are most helpful to the monotones.

In the development of tone-relationship I use the "tonic sol-fa" system. We teach first the tonic chord in the following order: 1 and 8, 5 and "5 below," then 3. The two new tones of the dominant chord are 2 and 7. These tones proclaim the key. The replica of each tone is taught—"2 above" and "7 below;" lastly, the new tones of the subdominant chord 4 and 6 with the "6 below." In developing the tones in this way I believe a feeling for key is established more perfectly than by any other method.

This work should be so blended with the rote songs that the children are brought to see that these tones they have been learning are "the stuff tunes are made of."

Staff-notation has been made the bugbear of the schools; the reason being, we believe, that the attempt is usually made to teach it before the child has anything to notate. This is in direct violation of the Froebelian principle, "the thing before the sign." It reminds one of the nonsense rhyme of Kate Douglas Wiggins:

> The centipede
> Was happy quite
> Until the frog
> For fun said: "Pray
> Which leg comes after which?'
> Which wrought him up to such a pitch
> He lay distracted in a ditch,
> Considering *how* to run.

Staff-notation should not be presented before the spring term of the second year. By that time the pupil will have learned the scale in all its delicate interrelations. It will have become to him a real thing that he can use to make little melodies from. When this period of development is reached, staff notation will be the symbol of something already known.

In the third grade the children will take infinite delight in composition of little melodies of from four to eight measures. They will, to be sure, for the most part be crude little attempts; but they evidence definite results in the child's musical development.

For a child to be able to think in melody is an achievement of great significance; but when he can record his melodic concept in music notation, he has had opened to him a channel of expression which affords him the opportunity of *any* achievement within his musical potentiality.

ROTE-SINGING AND ITS PROPER PLACE IN THE PUBLIC SCHOOLS—PRACTICE VERSUS THEORY

W. A. HODGDON, SUPERVISOR OF MUSIC, ST. LOUIS, MO.[1]

Introductory to my paper I could quote, from Shakespeare down, the sayings of men of note, men of culture and deep research, anent the value and influence of music; but the time now is when this is unnecessary and superfluous. I shall confine myself to the subject of music in the public schools of America. Permit me to say that if you expect my lecture to bristle with far-fetched theoritical ideas, I fear you will be disappointed. My aim is to present *practical* ideas, based mainly upon my own observation and long experience. It is for the supervisors of music not only to discuss means and methods whereby the music in our public schools can be improved, but to take some concerted action as to *how* this can be done. It is not what we have done in the past, but what we *will* do in the future. How shall we begin, and how proceed from the lowest to the highest grade? Is it, or is it not, the first duty of music supervisors to formulate a plan of work, or course of study, for each and every grade, so that rote-singing shall not only take its proper place, but shall, when well taught, become the stepping-stone to staff-notation? I will attempt to point out other important points, closely allied to it, which are now too generally neglected during the first two or more years of the child's school life.

I believe that the presentation of staff-notation to the child during the first and second years of its school life is unnecessary and unpedagogical. Experience has shown me that nothing is gained by beginning staff-notation before the age of eight or nine years. The children beginning at ten will outstrip those commencing at eight or nine. Let us not be deceived by mere showy, mechanical processes arising from a premature introduction of staff-notation.

[1] It is worthy of note that Mr. Hodgdon was appointed supervisor of music in St. Louis in 1854.—[EDITOR.

All agree that the first object in view should be to create and cultivate in the child a true love for music; to develop first the imitative and emotional faculties, then the perceptive, all of which precede the development of the reasoning faculties; and last, but not least, to stimulate patriotism and a love for our country which will go far toward making our children good and loyal citizens. The precious seeds of patriotism should be sown early.

The question now arises: How and thru what channel can this first and important object be accomplished? The answer is: By rote-singing. The speaking voice should by no means be neglected; otherwise the singing voice will suffer by the oversight. It is here that vocal music and the general speech of the child correlate. No teacher should allow her pupils to speak in a harsh and unnatural tone of voice. Should not our principals also realize the value of this suggestion?

If enough can be suggested, and that too of far greater importance than staff-notation, then the writer's theory is correct. Permit me to suggest the course to be pursued. According to logical and pedagogical principles, speech first, then the signs of speech; tones first, then the signs of tones; songs first, then the signs of songs; the scale first, then the signs of the scale; example, then precept; in other words: "the *thing* before the *sign* of the thing." In accordance with these principles, teach, in connection with rote-songs, the major scale, as a little tune, by *rote*, by *ear*. Every teacher should use a pitch-pipe.

To some persons it may seem a simple thing to teach the scale. What a class may do, or seem to do, is one thing, but what each child can do individually is quite another, leaving out of the question the monotones. It is a surprising fact that, with but few exceptions, the pupils who attend the kindergarten, where song-singing cuts an important figure, are unable to sing the scale when they enter the primary school; hence my reason for teaching the primary classes, by divisions, subdivisions, and individually, the simple scale in connection with songs.

Teaching the scale by use of blocks, by figures upon the scale ladder, or by notes upon the staff may be very pleasing to the *eye*, but none of these devices assists the *ear*. The ear was made for *sound*, and is soonest awakened by song-singing and occasional scale practice. The scale should be thoroly taught before interval practice begins. Every teacher should keep a list of the monotones; also of those who can sing five tones more or less, and of those who can sing the entire scale; and should furnish the teachers above with such list when promotions are made. This process should continue from class to class thru all the primary grades. As this is done in other branches of study, why not in music? We want a host of little singers. We shall not get them without this careful practice in the primary grades. *Voice first, then quality of tone.* We know that loud, harsh singing is still permitted, and that many of the children's voices are injured by it. Low, rough tones should be avoided, and high thin tones—"head tones" so called—should prevail. Herein lies the secret of success, now and hereafter.

We need a whole regiment of supervisors and a grand army of music teachers who will arouse themselves, stamp the dust from off their feet, and go forth to their daily work with a determination to raise the standard of music in our public schools to its proper level. If the work of the first three or four years be well done, I venture the assertion that the percentage of good voices and singers in America would increase twentyfold.

My plea is not merely for rote-singing, but for childlike tone-quality. The two must go hand in hand. There is no lack of songs suitable for all seasons and occasions. Indeed, there is no lack of anything except good teachers. Music is an art, and should be so treated. Sing more and talk less about the things pertaining to music. "Practice makes perfect." Do not think for a moment that legitimate voice-culture has a place in the schoolroom. Do not tell the children how to breathe. Secure first a good position, insist upon light head tones, and natural breathing will follow. I say again: the *voice* and *ear* before the eye.

Simplicity has been, and still is, almost entirely ignored in the selections of songs for the children. The poetry especially contains many words not only too difficult to pronounce, but far above their comprehension. In dealing with children let us not attach too much importance to the word "classical." In so far as "classical" means *good*, I accept the term. Make the work for the children during the first two years as pleasant and enjoyable as possible. Why thrust upon them at once the poems of Longfellow, Whittier, Tennyson, Scott, Gray, and others, or the music of Beethoven, Bach, Mozart, Mendelssohn, and Wagner? Why not allow a reasonable length of time in which to draw them up to an appreciation of these great masters? There is no lack of beautiful and childlike poems which they can understand and appreciate.

Did not our great painters first sketch and daub, and then patiently toil on, until they reached the higher forms, including lights and shades? Is not simplicity at the base of every branch of study taught in our public or private schools? Is music the exception? We must accept the lower standards before the higher can be reached. The teacher who would teach children as little acorns today, and as tall oaks tomorrow, will fail in every branch of study.

We should not forget that the average school life of the children in the public schools of any city is only about five years.

Interval work, in its simplest form, should follow rote-singing and scale practice, all of which should precede staff-notation, The mastery of intervals is of great importance and should not be too long delayed. Thus far the ear has been called into action; now the *eye* and the ear may assist each other in the work by the introduction of the scale ladder. If the scale ladder is used, I insist that the intervals taught upon the ladder be reviewed by dictation. The teacher should dictate the numbers and require the children to respond with the corresponding syllables. I do not trust to the ladder alone. In all regular scale practice I insist upon the use of other than the syllable

names, viz., "no," "la," "loo," etc., and occasionally the number names in order to establish a close relationship between them and the syllabic names.

Children can be taught during the first two years to recognize any tone of the major scale regardless of the name applied, provided that staff-notation be excluded, as it could be.

This assertion is not based upon theory, but upon observation and practice. One of the most interesting phases in the whole gamut of instruction is the development of *tone-perception* in the child—the ability to think the different tones of the scale corresponding to the numbers, and especially so when the class is able to recognize the tones by other than the syllabic names.

Thinking in tones: In order to think in tones we must know the tones. Before thinking in words we must know the words. How can the child think in sentences, unless he knows the words of which they are composed? How can the child think a little song made from the tones of the major scale, unless he knows the scale? Do we, *can* we, realize how much it means to the child when he comes to know the scale; know it as a whole; know each tone in relation to the next; know each tone in relation to every other?

Melody is the life-blood of music. It suggests accent. It is the stepping-stone to rhythm, and sooner or later allies itself with harmony. So it is thru rote-singing that we educate the taste, which leads up to a proper expression of the sentiment contained in the song. Indeed, the practice which the younger pupils get in rote-singing naturally tends toward a more musical rendering of the exercises which come after. Musicians may advance their theories *pro* and *con*, but no amount of knowledge can possibly take the place of actual experience in the schoolroom with the children. The teacher, who knows the children best, knows what they can, and ought to do. Experience is the greatest teacher.

Time and tune lessons, consisting of exercises and simple songs with words attached, should now be introduced. The children should sing these, first by the different singing names before attaching the words. I write these lessons in figures upon the blackboard as, at this early stage of the work, the numbers impress most vividly upon the minds of the children the different tones of the scale represented. Furthermore, these simple lessons afford relief from the monotony arising from the practice in interval work, and thru them they learn something of accent and expression, which calls into greater action the perceptive faculties. It is simply a continuation of interval study written in rhythmic and melodic form. It is the "tonic sol-fa" system employing numbers instead of the letters *D*, *R*, *M*, *F*, etc., prior to the introduction of regular staff-notation upon chart or blackboard. This last work is the final preparation for putting songbooks into the hands of the children, and if the work here outlined is thoroly done, securing erect position, soft singing, correct pronunciation, distinct articulation, a free use of mouth and lips, and last, but not least, the necessary amount of interval practice, success must follow.

Many, many times have the teachers under my supervision spoken to me about the difference in classes which have, and those which have not, been prepared in this work of interval practice. Cannot we see, have I not seen, that if the work of the first two years were better done, there would be no place for staff-notation so early? Now, I wonder if teachers generally know the reason why, as it has often been truly stated, only about one-third of the children really read by note, while the other two-thirds follow by rote. I will state why: The children should first be allowed to point at the notes, and, secondly, the teachers should see that every child follows them.

The *eye* needs training as well as the ear, at this stage of the work. Try this experiment: Ask the children where they are singing; and you will find that many of them are pointing in the wrong place—some ahead and some behind, some even on the wrong page. Is it the fault of the child or the teacher?

Before closing this first part of my subject, allow me to quote briefly from the *School Music Journal* of March, 1898.

> Mr. Damrosch, director of music, New York city, will give the subject of music a thorough interpretation. All instruction is to be based on, and grow out of, song, and the idea of beauty is never to be lost sight of in teaching. The same principle of beauty is to be insisted upon in the selection of poems to be used. Great care is to be taken also of the voice, that the singing shall be sweet, agreeable, and expressive.

I am glad to find that my position is so strongly and ably indorsed.

Introductory to the discussion of the last part of the subject, "practice *versus* theory," I quote a few extracts from a paper read before the Normal Music Teachers' Association at Boston by Superintendent M. L. Hawley, of Gloucester, Mass.:

> Finding that the progress of the pupils in music-reading did not compare favorably with their progress in other branches, I was anxious to find the cause.
>
> Listening to the catechism of the children in the perplexities and mysteries of the staff-notation as generally taught, I reluctantly came to the conclusion that music could not be successfully taught in the schools without encroaching too much on the time required for other branches. If it had dawned upon me that it is neither necessary nor wise to teach it as a *science*, that children can learn to sing by singing, just as they learn their mother-tongue, I should have come doubtless to another conclusion. If the difficulties which perplex even maturer minds are simplified or kept out of sight, our children can learn to read music as readily as they learn other branches of study.
>
> Considerable time was spent by the pupils in learning *definitions*, which should have been devoted to practice in *singing*. It matters little whether children can explain the transposition of the scales, etc., or not, but it is of great importance that they be able to pass readily from one key to another in singing.

And here let me ask: Where is the teacher, in this day of progress, worthy of the name, who will defend that ancient and illogical system of teaching our children their *a*, *b*, *c*'s, then the *a-b*, *ab*'s, then the more advanced combinations of "baker" and "butler," etc.; and lastly, when forming sentences (lest by chance an idea might creep in), they were put into the strait-jacket of punctuation marks, counting one for the comma, two for the semicolon, and four

for the period, practicing upon the rising and falling inflections, accent, and emphasis, without one thought of the meaning of all this conglomeration of words and mechanical appliances?

It will readily be seen that the topic now under consideration affords ample scope for suggestions and discussions. It is my purpose not only to point out, as briefly as possible, things which should be *done*, in order to hasten the desired results, but to suggest some of the things that should be left *undone*.

Practice should precede theory. We cannot afford to waste valuable time upon any theory that will not essentially contribute toward making the children singers and, in due time, *readers of music*.

Dr. Lowell Mason sounded the keynote when he said: "The best way to learn to sing is to sing." "Unfortunately, education among us consists too much in telling, and not enough in training," said Horace Mann.

Let us avoid all mechanical appliances which do not incite to self-activity. The inductive method of teaching music in our middle and higher grades will insure success in the important work of ready sight-singing. It is the *e-duco* process opposed to the telling or cramming process.

Right here is where I beg leave, to a certain extent, to cut loose from some of the old stereotyped, but not yet discarded, methods of teaching. I believe that the syllabic names have come to stay, especially for the masses. They may be made the basis of our work, a stepping-stone as far as may seem necessary, but they do not cover the entire ground. Singing by the syllables *only* is not singing at sight, in the true sense of the word. It is, in fact, only a plausible attempt to do so. We should employ other names at the start, and thus avoid being absolutely tied down to the syllabic names. The time will come in the experience of every singer when names heretofore applied to notes must necessarily give place to words. Here the true test presents itself. The breach between them and the syllabic names is too great.

No matter if the process be slow at first, the foundation stones would be sure and steadfast; and eventually good sight-singing would be the *rule* and not the exception, and the task which now seems a difficult one would become comparatively easy. I am sorry to admit that at present the exception overshadows the rule in very many of our schools. Again I ask: Is it the fault of the children, or of the teacher?

The question now arises why there are so few readers of music at sight? The answer is: Too much theory at the expense of practice. I recognize fully the value of theory, but am opposed to the way in which it is taught, and the unnecessary prominence given it by many teachers. If the method of teaching is correct, the cramming process will soon die out, as it should do, and the definitions will die with it. The method of teaching by induction should prevail, and much that is now taught thru the telling process should come to the pupil thru his own observation, practice, and self-activity. The key to future success depends upon the better preparation of supervisors for the work and the grade teachers likewise.

Dr. W. T. Harris says:

Inasmuch as the child is self-active and grows only through the exercise of self-activity, education consists entirely in leading the child to what develops this power of doing. Any help that does not help the pupil to help himself is excessive.

This maxim is indeed *multum in parvo*, and should be our motto in every branch of study. The question is not alone what children can *do*, but how well they can do it.

It is when the muscles cease to act that the limbs begin to wither. It is when the life-blood circulates lazily that the body pines. Unless our dormant energies are aroused, we grow to look like idiots. After labor, rest is good. Tell the child as little as possible, and draw from him as much as possible. Teach the letter-names of the various lines and spaces of the staff, and how to find the keynote, or letter, in the different keys as they occur in practice. Require the pupils to know the different keys by their signatures, and in due time the use of the different *time* signatures.

This is all that is necessary for the children of the third and fourth years. Do not waste more time on letters. Read the letters of any exercise once, twice, or ten times, or spend twenty or thirty minutes in writing them, and not one jot or tittle has been added to the child's ability to sing at sight, but valuable time has been wasted that should have been employed in singing. If the pupil can sing by note correctly, by syllables and otherwise, as before suggested, what more is needed? Why ask him what letters he sang in the various intervals of the exercise or song, if he sang the intervals correctly? Let well enough alone. The inscription upon a certain tombstone in the old country strikes us rather forcibly just here, viz.: "Was well, wished to be better, took medicine, and here I lie."

It is quite as important that the teacher should know what *not* to teach, as what to teach.

The movable "do" system takes care of the intervals regardless of how few, or how many, signature sharps or flats there may be. The letter-names of the notes are of no value in reading vocal music at sight. I say again that it matters not with how many signature sharps or flats a piece of music may bristle, no special attention needs to be given to them, and no mention, after the keynote is found. Immediately attack the piece and sing it at sight by the position of the notes upon the staff. Relegate that old fad, the written transposition of the scales, to the background, and teach it practically. Let us no longer teach that an accidental sharp raises, or that a flat lowers, a note or tone (unless we believe that an untruth is better than the truth), but that the sharp represents or indicates another tone a half-step higher, and the flat a tone a half-step lower. Let us say what we mean and mean what we say. Careful practice will produce the desired results.

I will venture to assert that the village singing schools of twenty, thirty, and forty years ago furnished more and better readers of music than do our city and country public schools. I am not alone in this position. I know this

by personal experience and observation. The reason is obvious. Then it was practice *versus* theory, and all necessary theory came thru persistent application. Each one for himself and herself solved all the necessary rudimental problems, and, strange to say, without written examinations of any description, which now prevail in many of our public schools. These facts furnish food for thought.

But I am reminded that ere many more years come and go I shall put off the harness which I have worn so long, and with so much pleasure. Others younger, and in the prime of life, must take up the noble work, and carry it on with energy and a determination to succeed. I hope to continue the work as long as my health and strenght permit, and I can keep abreast of the times. Let us not turn back, nor falter by the wayside, but let us work together harmoniously, with one grand object in view, viz., to raise the standard of teaching in our public schools everywhere, and hasten the time when the children of this our beloved country will come to know what is good teaching, and we as teachers shall not be satisfied until the best instruction and the best class of music shall everywhere prevail. In what nobler work can we possibly engage? With the prize ahead, let us press on with vigor.

School life is too short to allow any waste of time. How good one may and ought to be was long ago revealed to us, but how much knowledge one may acquire yet remains an unsolved problem.

As we look onward down thru the vista of time, may we behold only that which is beautiful and true! Intellectual acquirements alone, without other refining qualities, will be weighed in the balance and found wanting. This is true of communities and of nations.

Let us sing; let the children lift up their voices and sing, all over this grand and free country, until music and song, hand in hand, two in one, shall go marching on triumphantly into every schoolroom in this broad land, and there be recognized as one of the important branches of study, and thus accomplish the noble purpose intended by our great Creator.

MUSIC IN THE PUBLIC SCHOOLS A MEANS OF CULTURE IN THE COMMUNITY

MISS LUCY ROBINSON, SUPERVISOR OF MUSIC, PUBLIC SCHOOLS, WHEELING, W. VA.

"Music hath charms to soothe the savage breast." The poet spoke truly, and the denizen of the forest has taken the first step in civilization when he has heard a melody that for the time at least displaces all thoughts of pillage and murder. Music is not only one of the handmaidens of civilization, but it is also a powerful, if gentle, ally of refinement. Even martial music is civilizing. While the music that inspires an army to deeds of valor temporarily

smothers the peaceful emotions and calls into activity the more strenuous elements of man's nature, yet when the strife has ceased and war has become a mere memory, the old martial songs arouse only a spirit of patriotism, and that is but another name for love, which, the apostle tells us, "suffereth long and is kind."

If, then, music is a means of refinement and civilization, even in its most comprehensive sense, is it to be denied that it assists very greatly in general culture? It is our object today to discuss this wonderful gift to man in its relation to the social state, and to determine, so far as we can, how the public schools may be utilized as an agency by which music will exert an influence on the community that will generously contribute to the highest type of culture.

Music educates those who hear and those who produce, and educates always to a higher taste. In this it presents many of the same phases as literature. In his early days the youth gloats over fiction of a wild and bloody character; the more horrid the scenes and the more flaming the language, the more enjoyable it is to him. But if he lives and reads, he is sure to lose his appetite for such food; and if he comes in contact with even a simple kind of better literature, a higher taste will by degrees be formed. Indeed, his appetite is sure to cloy upon what he reads, until he himself craves something higher. A person may have been a chronic attendant upon the sensational drama all his life, and his mind may have become saturated with unattainable hopes and ambitions, the unreal and oftentimes ridiculous situations described and acted, and the unrefined, sensational language employed in the rendition of the stuff to which he nightly listens. But bring him for the first time face to face with one of Shakespeare's plays well acted, even if he does not understand it all, and even if he sees and hears much that does not appeal to him, he experiences a new feeling of respect, sometimes almost of awe, distinct enough to show him that he has been treading along dangerous and unprofitable paths. If after this he hears again the low productions, this feeling will be much stronger; but let him even for a few times hear the better play, and his first peculiar, and perhaps uncomfortable, sensations will return in even stronger form, and gradually his taste for the low and unworthy will disappear, and he will wonder at his former state.

What is true of literature is equally true of music; hence these illustrations are indicative of what actually occurs in the metamorphosis of musical tastes. The ordinary popular song does not represent a high order of music. It appeals to the popular fancy because it is catchy, and easily remembered and reproduced, so that a person most uncultured in music is whistling or singing it within an hour after it has been heard upon the stage. If a song does not have movement and melody to attract these whistlers and sing rs, the copies will lie on the shelves, unsold, unhonored, and unsung. If the public in general enjoys trashy music, it is largely because its taste has never been cultivated to appreciate the good. It is a great pity that the American

people are so largely ignorant of music, get so little of the possible pleasure out of it, and so little of the civilizing and elevating influence of good music. It is not difficult to cultivate some taste in music, if the beginning is made at the right time, and if the efforts are persistently kept up. It is a well-known fact that it often requires but a slight shaping of the thoughts and inclinations to start the musically bent mind in the right direction. As it begins to meet with music of the better sort, it becomes enchanted with the new realm into which it has strayed; it analyzes with avidity the surprising combinations of sounds into delightful harmony, and looks forward with the most pleasurable anticipations to further discoveries of even a higher order. Under such circumstances it is not difficult to forecast the outcome in individual cases.

But this cultivation of taste is not limited to the musically bent mind. Practically all minds are open to the influence, if the proper beginning is made at the proper time. There are various means of cultivating musical taste in a community. The presentation of good music, notably thru the medium of the concert, the opera, the orchestra, the brass band, may under proper conditions be a powerful influence, and fortunate are those who are so situated that they can be brought under its educating sway. But there are two circumstances that prevent such music from becoming a very potent factor in training the public mind to a high degree of culture. First, such ventures are not always self-supporting—a fact that not only brings their promoters into financial difficulties, but also discourages others from entering the same field. Even in our largest cities, organizations of enthusiastic, musical people find it necessary to create a guarantors' list, the members of which are yearly called upon to make up somewhat alarming deficits. Second, the public cannot be compelled to patronize these renditions of the masters. Even when free to those who will take only the trouble of attending, they frequently have discouragingly meager audiences. Add to all this the fact that our population is being continually augmented by hordes of the ignorant and vicious, and the case looks almost hopeless for accomplishing a great deal by this means.

The only remaining agency, then, is the public school; and is not this enough? Do we not rely upon the public school for the general intelligence of the community in practically all subjects? I am entirely confident that if music is taught during the public-school course in the right way, we may have within a generation a people as musically alert as they are now musically dull. The experience which we have already had indicates this; and all the conditions are favorable, because, first, *all* must receive the instruction; and, second, it is given at a time when the mind of the child is best able to absorb it and adopt it into its life and surroundings. Growing up with it, thus, the child assimilates music as he assimilates the healthful food that is daily applied to the nourishment of the physical man. How needful is it, then, that musical nourishment should be of the proper quality! There is just as little culture force in low-grade music as there is in low-grade literature, and the system

of schools that permits mediocre music to be taught may be training for greater facilities in reading notes, or a certain faint appreciation of harmony and composition, but is giving the children no real musical culture on the æsthetic or artistic side. What is culture but the very refinement of education? Its immediate effect is to cause an earnest, an intense desire for further advancement in the same direction. Trashy literature or trashy music will never create this desire; hence the impossibility of raising the public taste to the proper standard in either subject without supplying the very basis of that taste. The pupil must be brought into contact with good music and kept in contact with it, if he is to be taught to love it. Our text-books must therefore be filled to the cover with the very best music, suited, of course, to the capabilities of the children.

And what are we to say of the teacher? Certainly she must be thoroly educated musically if she is to succeed in this work. The absurdity of placing musical instruction in the hands of those who have not the faintest idea of harmony or of the well-defined laws that govern good singing should be patent to everyone; yet it has been found necessary to do this very thing in order to have music taught at all. In this regard the schools of Germany are far superior to ours. There the teacher must be a musician. He must be able to play on at least one instrument, and hence he is well qualified to conduct this department of school work. The government demands that he shall be competent to direct his pupils in music, and in order to secure this proficiency, he is trained in music just as he is trained for expertness in other directions. When the school authorities thruout the United States demand a like standard for all applicants for schools, we shall have the same thoroness of instruction that exists in Germany.

But we have the right to go even farther. Not only should teachers be capable of giving instruction in the rudiments of this branch, and have sound knowledge of harmony and composition, but they should have that vastly wider culture which includes proper expression, and the perception of what is good or bad in tone-production, as well as the ability to cause the young mind to distinguish between the manly, the yielding, the emphatic, the suppliant, with something of the same power of interpretation that he probably has in reading. Will this condition of affairs ever come to pass? I do not hesitate to say that it will when the educational powers say so. At present our only course is to go forward as we are doing, placing teachers under the very best supervision it is possible to secure. The leaven will work, is working. Indeed, it is astonishing how much can be accomplished thru the medium of a supervisor who is magnetic, tactful, energetic, watchful; and more have these four qualities than many of us imagine.

When the happy day comes, our teachers will feel as much at home in music as in arithmetic; the little German band will taboo ragtime melodies, because they will not be appreciated; and, best of all, the child will grow up a lover of good music, because from his youth he has known nothing else.

METHODS VERSUS RESULTS

W. H. POMMER, SUPERVISOR OF MUSIC, ST. LOUIS, MO.

"Es ist eine alte Geschichte,
Doch bleibt sie ewig neu,
Und wem sie just passieret,
Dem bricht das Herz entzwei."

It is an old, old story,
Yet still 'tis always new,
And he to whom it happens,
His heart will break in two.

A personal interpretation of these lines, wherein Heine sings of unrequited love, might reflect the emotional state of one who has had temerity enough to select the well-worn theme of "Methods *versus* Results" as a subject for a paper at the National Educational Association. While the last line might be strengthened by changing "heart" to "head," it were better, on the whole, to leave the verses unaltered, for, by the simple process of substituting "methods *and* results" for "methods *versus* results," the writer could keep his head uninjured, while his heart might remain broken at the prospect of dealing with so vast a theme in so limited a time.

Surely methods *and* results together must cover the whole ground given to music as an educational factor in the public schools. If, while honoring the "divine art" with a place in the curriculum, the desired results be clearly defined, it would seem that the outline of methods to be employed would stand revealed at the same instant. The reverse is not equally true, inasmuch as results are of primary import; methods, of secondary. Rome, as a central attraction, had many roads leading to it; in spite of the adage, however, there are many roads not leading to Rome.

The early explorers in our great country blazed the forest trees as they cautiously advanced into unknown regions. This primitive manner of marking their route enabled them to return to their place of departure, in case they wished to do so. In the course of years some well-worn paths were thus developed, mostly by the apathetic who, without further parley, trod in the footsteps of those who had gone before. No doubt, much commiseration was wasted by early conventionalists, and many sneering "I told you so's" uttered when an occasional venturesome spirit went astray in the woods, or willfully refused to return to his starting-place, after having once stumbled upon a broader vista at a natural parting of the ways. At the present moment, even tho we glory in our many means of rapid transit, with aërial propulsion near at hand, the weary traveler is still often confronted with the old problems of choice of direction.

What dull equine instincts may not certain animals in Switzerland possess, trained from youth to take certain difficult steps in perilous places? [Sings: do, re, mi, fa, sol, la, *ti*, la, sol, fa, mi, re, do.] To use a Hibernianism, these

same horses would be at sea in a beautiful meadow. [Sings: mi, re, do, *ti*, la, sol.]

The small boy trying to look over a high fence, which even tiptoeing prevents his doing, can suffer no greater soul-torture than is expressed in [sings] do, re, mi, fa, sol, la, *ti*, la, sol, fa, mi, re, do.

The tourist-rider is requested by his gnide to let the bridle of the Swiss horse severely alone; the little boy is instructed by his teacher to tiptoe again and again, with the cheering admonition never to despair, inasmuch as his legs are continually growing, and in due time they will be sufficiently long to enable him to look over the fence with ease. If given his own choice, the Swiss horse would willingly follow his rider's directions, preferably in the meadow, and the small boy, under the same conditions would hop over the fence.

Our good little boy has also been told that it is more humane to cut off a dog's tail by inches than to cut it off in one fell clip. At least this idea must have been presented to him musically, for we cannot put any other interpretation on such inane proceedings as [sings] do, re; do, re, mi; do, re, mi, fa; do, re, mi, fa, sol; do, re, mi, fa, sol, la; do, re, mi, fa, sol, la, ti; do, re, mi, fa, sol, la, ti, do. There can be no doubt but that every well-regulated dog would prefer [sings] do, do, 8va. Query: Why cut off the dog's tail at all?

We are told by physicians that our daily constitutionals are of but little value without a goal to add interest to our promenade. Nothing tires so much as aimless wandering. The boy, who listlessly carries a scuttle of coal for his aged parent will joyously fill the bin when playing at coal merchant with his fellows. Notice the parent of this boy, who, while having a watchful eye upon his son, and ever thinking of the obstacles to be overcome on his journey, and the appointed time of his arrival, has still arranged matters so that the lad may occasionally loiter by the wayside to pluck an attractive flower or to toss his ball high into the air. It is not much to say that this parent has solved the problem of methods and results in a very easy and effective way. Should we not pity the child of this other parent, on whose stern face is written: "I know exactly where I am going, and I know exactly how long it takes to get there?" This parent never lets go of the hand of his young hopeful, who is sure to feel stiff and awkward in his Sunday-go-to-meeting-best, but drags him along with nothing but a "hurry up" by way of encouragement. Here there is a great discrepancy between methods and results, the relative stride and the crying wants of the child's nature having both been overlooked. Let us make a plea for greater freedom. Allow the child to do what pleases him, but be sure that the thing that pleases him is the thing we want him to do. In the gymnasium of the day special muscles are developed for special purposes. The endurance of the Indian, whose physical training has been obtained in free, open-air play, is greater than that of the skilled gymnast.

Every supervisor has had strange experiences of the faithfulness with which his instructions have been carried out by well-meaning teachers who

fail to catch the central idea. You cannot develop freedom in the child if the teacher does not possess it. True freedom comes from knowledge. The inference is that teachers must have a better normal training in music than ordinarily falls to their lot.

Let us not overlook personality. Everyone of any consequence has his own particular way of going at things. Are we not annoyed, when tying a bundle or sharpening a pencil, to have a kind friend say: "Why don't you do it so?" Of course, we know that "do it so" means the way our kind friend does it, and which to him means the best way. Let it be said that had we tied the bundle or sharpened the pencil in the way the looker-on suggested, it is quite likely that the question would have been: "Why don't you do it the other way?" Alas! here we find the germs of so much *supervisional tyranny.*

Sifted down, it would seem that "method" means doing a thing well, and doing it quickly. Difficulties are encountered in getting a number of people of different capacities to appreciate what "doing a thing well, and doing it quickly" means. In all our calculations account must be taken of the personal equation of the teacher—her environment and, above all, her temperament. The latter is an all-important factor in matters musical. It is to be hoped that the supervisor is complete master of the situation. If this is not so, the matter gets to be still more complicated. Much valuable time is lost by the superconscientious teacher delaying over unessentials. As in regular medical treatment, let the supervisor carefully diagnose the case and give the proper remedy. The patent musical methods are no better than the patent-medicine methods. There is some good in each of these, but the glaring deficiency is that they do not cover every case. If we must die musically, let us do so in spite of sane treatment. On the other hand, it is always better to get well, even, if in doing so, we prove that certain specifics for dangerous conditions are specifics no longer.

The ultimate purpose of music in the public schools must be the same as that of any other study in the curriculum, viz., the awakening of an important part of the child's nature. Omitting the few who follow music professionally, it might be profitable to study the cases of the many who will drop music as they do many other branches in later life. It is not asking too much to insist that mental discipline should be a *sine qua non* of all musical effort. Language, from its constant use as a means of communication, is never forgotten, and its mechanism gets to be more and more perfected. Time was when sentences such as, "Is this the green umbrella of your blue-eyed grandmother?" were in common use in the teachings of French and German. Small wonder that there was no disposition on the part of the child to continue the study of foreign languages after school days were over. Why sear sentences such as the above into the brains of the young? When a child, by means of choice selections, learns to think idiomatically in a foreign language, it will have every incentive for further study; or, failing in this for lack of opportunity, will still have many quotations from master-minds to recall at will for either pleasure or solace.

The song material in our schools must be the best obtainable. The children must be filled with this. Even if they should forget the keys, the movable *do*, notes, rests, and everything else relating to the mechanism of music, in case the study of music should end with the school days, the essence of the music will still remain, the souls of the children will have grown thru this beneficent nourishment, a sense of beauty will have been awakened, and, it is not too much to say, their moral nature will have been strengthened; for, of all things in this world, music is least of the earth, earthy. If all methods tend toward this, music in the public schools will have a worthy object, and, incidentally, the pupils will learn to read. Page after page of beautiful music, gone at in a sensible way, is bound to lead to sight-reading; whereas page after page of sight-reading as an ulterior object will keep the pupil in the "green umbrella and blue-eyed grandmother" stage. Every city, every school, every room, needs somewhat different treatment on the part of the supervisor, the only unchangeable thing being *musical hygiene*. Above all, let not the personality of the teacher in charge of the room be overlooked. If she, as an intermediary, can produce the desired results in a somewhat different way from the generally accepted one, by all means let her do so.

Methods must fit the results to be obtained. The reverse of this would be fatal.

THE PUBLIC SCHOOL MUSIC SUPERVISOR IN HIS RELATIONS TO THE PROFESSIONAL MUSICIANS AND THE PROFESSIONAL EDUCATORS

FRANK NAGEL, PIANIST, HIGHLAND PARK COLLEGE, DES MOINES, IA.

The teaching of music in the public school has been in a state of development for some twenty years, and at present the time only the mountain-tops are bathed in the sunlight of its beauty. That some rays are creeping down into the vales below is due to the spirit of progress that permeates the general thought of today, and pulses thru every branch of educational work. In this waking up from a state of dense ignorance and indifference there has been much running to and fro in the land, in search of means and ways and methods whereby the teacher can obtain good results. What are the results most to be desired from our public-school music? You will all agree with me that sight-reading is the one thing needful from this particular line of work, and along with this a general awakening of the child's musical nature.

In this period of development there have been no recognized standards; changes in methods have followed each other with such rapidity that only the "lightning-change artist" could accommodate himself to the swift rush of the "one and only" methods which present themselves for consideration. Even now there are advocates of the fixed *do;* of the theory that the key of C should be thoroly learned before taking another key; of the idea that children should

be required to mark time in order to become good time-keepers. There are advocates of the theory that children should be taught sight-reading from the first, and that all their songs should be read at sight and none taught by note. On the other hand, there are advocates of the opposite extreme, that children should be taught entirely by the rote song. Each of these methods has its ardent supporters, and there are supervisors who tie themselves up, with this hobby or that, and become method-ists to such an extent that they are well-nigh useless as educators.

Hobby-ists and method-ists play but a limited rôle in the broad scheme of twentieth-century education, and we find the horizon of such teachers shrinking yearly. Each year, however, an increasing number of reasonable, well-equipped school-music supervisors are added to the ranks of the trained leaders who shun all narrowness and work in a broad and scholarly way. The work of the music supervisor is distinctly separate from any other branch of instruction, for the supervisor needs more pedagogical training than the average musician, and far more musical training than the average pedagog.

One can see at a glance that our small towns are at a disadvantage, as this work, for lack of available teachers, is put in the hands of someone not properly equipped. This could be remedied, if several small towns would unite under the supervision of a trained supervisor with a salary sufficient to procure the best, which is always the cheapest. If the local teachers would support such a measure, it would be an impetus to its consummation. Such an action would increase the work of village and country music teachers, for there would be more demand for private vocal and instrumental lessons, as a result of good work, done by a competent supervisor, in loosing the shackles of ignorance and freeing the imprisoned sense that sometimes beats hopelessly in darkness.

The greatest Teacher that ever trod this planet once said: "Ye shall know the truth, and truth shall make you free." Free from what? Free from ignorance, and free from darkness. No artist hand can paint a scene where darkness reigns supreme. Consider what it would mean to the children, to the music teacher, and to the community to have an expert in school music, in charge of several towns and villages.

The increasing interest in school music has found the inexperienced teacher beset with difficulties. Working his way among the various fallacies we have mentioned, relying on his own intelligence in making out his course of study, and in the selection of material to be used, unable to consult any recognized authority, the ambitious supervisor finds himself floundering in a sea of difficulties. Under such circumstances one is in danger of grasping at any straw that floats in his direction, and fancy he has found a raft upon which he can stand.

This increasing interest in school music has resulted in the professional educator giving much more attention to the methods of the supervisor, and the pedagogical laws underlying music-teaching. This individual will soon learn that he cannot classify music with reading, spelling, literature, or grammar,

nor can he apply his pedagogical laws to music, as he does to other studies. He may believe that, because reading can be taught by reading, music-reading can be taught by singing. It does but little good to believe a thing; you must know it thru your own proving before mere belief becomes demonstrable knowledge.

What experience in teaching music in the grades has the mere theorist had? None whatever; and sometimes the professional educator may impose his ideas upon the supervisor, and prove a source of trouble and annoyance. The educator's pedagogy may be correct, but his knowledge of music and the best ways of presenting it to the masses of children in the grades may be woefully deficient. Because of the ethical—I would almost say, esoteric—elements entering into music, no one but the supervisor himself can work out the methods and discover the musical pedagogy necessary to meet the needs of the school-room; and so the supervisors must hold steadily on their way, accepting the best they can find from each other, taking the best educational theories advanced by the professional educators, and using all the good that will fit into their special work.

All educators cannot work in the same way, any more than a ship-builder, a balloon-maker, or a violin-maker can all work alike in their building, All three are building something, but their methods differ, because of the difference in the things to be built. There is a like difference between teaching a child arithmetic and developing its musical nature. The music supervisor can accept from the advocate of the new educational method all that is useful for the happiness and development of the children in connection with the study of music. The professional educator should not become a chronic critic, nor an avenue for the anarchist tendency that is ready to tear down and sweep away all that does not confrom to its idea of what should or what should not be.

The professional musician, who is a specialist as a pianist, vocalist, violinist, band leader, or theorist, knows, or at least should know, that the supervisor does not need to be an expert in any of these branches, but that he needs to work from a broader basis. It is necessary for the music supervisor to understand the capabilities of children in each grade of the school, and he should be such a master of the situation that the limited time of ten or fifteen minutes a day is replete with rich results in each room.

It is not the ability to play an instrument or to write a fugue that makes the successful supervisor, but rather an intelligent appreciation of child-development from six to ten years of age; an ability to analyze the subject of music, and present it to the "shooting idea," so that it comes within the mental horizon of each grade, and, like the rounds of a ladder we mount, each round is a support while we stand on it, and leads up to the next one. Nothing must be omitted in the grades that is necessary for proper progress and development, and nothing taught that does not bear upon the end in view, viz., good sight-reading. It is not the great performer on any instrument, nor the great theorist, nor composer, who is sure of success as a supervisor of school music; but rather the one

with the characteristics of the natural teacher strongly developed, with a thoro knowledge of the fundamental music facts which are needed in the course of public-school music, and with the ability to present these facts to children in such a way that a mode of music thinking is established. The supervisor should not be judged by a false standard of things not required, and entirely at variance with the requirements of his position. Holding a public position, and accepting public money as remuneration for his labors, he must indeed be judged; but let that judgment be along the lines indicated. Test your supervisor as a teacher of children in the schoolroom, as an organizer of school music, as a tactful assistant and adviser of the grade teacher; but do not criticise him because he is not an artist or virtuoso or composer. If he is a teacher and teaches such parts of the elements of music best adapted to assimilation by the children in the several grades of the school, hold up his hands instead of criticising him. Applaud and support what you can, rather than attempt to put him down because he is unable to do something which is not necessary for him to do in his specialty of public-school music.

It need not be added that we are not advocating a narrow education for the supervisor. The broader and deeper the supervisor's musical education, the better his influence with teachers, pupils, and community. He cannot know too much about music, but it must be remembered that he can have a high standard as a scholar, as a master in different departments of the broad subject of music, and yet be a failure in directing the steps of the little child as he secures his musical education thru the medium of the public schools.

We hail with appreciation the general interest in this branch of educational work, and are ready to speed the day of its universal recognition.

REPORT OF THE CONFERENCE OF CO-OPERATIVE COMMITTEES OF THE MUSIC TEACHERS' NATIONAL ASSOCIATION AND OF THE DEPARTMENT OF MUSIC EDUCATION OF THE NATIONAL EDUCATIONAL ASSOCIATION ON A HIGH-SCHOOL MUSIC COURSE

[Abbreviated from the full Report]

The high-school music course, as arranged, provides four hours of music each week of the four high-school years, a total (counting thirty-six weeks to the year) of 576 hours. Piano, voice, organ, or instrument of the symphonic orchestra is credited as laboratory work. The customary one period of choral work added to the above makes five periods per week, with ensemble as an alternative in the fourth year.

The conference desires to state, with special reference to music in colleges or schools following the high school, that the course arranged may readily be divided into an elementary and an advanced course: the elementary, two years; the advanced, four years, but under special conditions capable of completion in three years. Such possible division is pointed out, because some pupils may be somewhat late in taking the music course, and therefore unable to complete it in the high school. In such cases the elementary course may be pursued at the high school, and subsequent music study conducted elsewhere.

The conference recognizes the fact that the course outlined is tentative, as is necessarily the case with all specific plans for new courses of study; they must be tested and readjusted

by trial and experience. It may, however, be said that much time, discussion, and careful thought have been given to the subject herewith treated. The work of the committees and conference has been conducted by teachers of long experience in high-school, college, and other fields of musical instruction and general education. These considerations, it is hoped, may secure for the report a careful examination by teachers, institutions, and others engaged in musical instruction and in the administration of education, as well as by the public interested in the advancement of musical education.

It should be added that some differences of view existed among members of the conference on certain points in the course of study; as, for example, the time when two-part writing or counterpoint should begin, etc. The conference, however, sends forth the report, as a whole, with its unanimous and hearty approval.

REPORT ON HIGH SCHOOL MUSIC ELECTIVE COURSE

Music has held an important place in both ancient and modern education. It has been ranked in the first group of great educational subjects by many writers and thinkers on education, for various reasons, some of which are stated in this paper. In the development of public education during the last few decades, music has failed to receive the recognition and treatment which justly belong to a subject whose many-sided value is generally conceded. For this comparative neglect various causes may be assigned, among them: the enlargement of every field of knowledge, the rise of new sciences, the swift and extensive changes in the content and administration of public instruction, the frequent modifications of curricula, the broader scope of secondary education, and the university movement. To these may be added the non-appreciation of the educational value of music, and the lack of unity among the teachers and friends of the art. Various other causes also have engrossed public attention and delayed the proper consideration and treatment of music as an educational subject.

With the growth of a just and comprehensive idea of education, the claim of music to an equal place with other leading subjects in the secondary schools is becoming more general, and for the same reason on which the introduction and retention of other leading subjects are based.

These reasons are (A) CULTURAL, and (B) VOCATIONAL.

A. CULTURAL.—*Music as a culture study rests on its values:* I, mental; II, moral; III, physical.

I. *Mental.*—(*a*) *Studies in interpretation.* In solving the problems presented by melody, harmony, rhythm, and tempo, and their expression thru voice or instrument, the study of music involves the excercise of the powers of observation (perception), logical conception, concentration in carrying and embodying related lines of thought simultaneously and accurately, sustained initiative, keen judgment, swift decision, poetic imagination, which entitle it to high rank as a mental discipline. (*b*) *Studies in construction.* In musical construction the same intellectual activities, some in greater and some in less degree, find their exercise and development.

II. *Moral.*—With poetry and the other fine arts, and akin to them in its underlying principles, music is an instrument in the moral training of man. Thus the masterpieces of pure (instrumental) music as well as the songs of home, friendship, religion, of national and patriotic feeling, give an appropriate voice to human aspiration, sentiment, and thought. Music, therefore, is another and great mode of expression, voicing and affecting the higher life of man. In all ages these uses of the art of music are illustrated.

III. *Physical.*—The co-operation of physical and mental faculties is requisite in both vocal and instrumental music as arts. The educative ends which manual training, for example, serves, are found in musical performance; and, perhaps in a more complete way, music tends to harmonize and correlate the mechanical faculties with the inner intelligence.

B. VOCATIONAL.—A great number of persons devote themselves to music as a life-work, pursuit, or profession. Every people that has risen to a high civilization has its teachers, composers, and performers, and recognizes their work as an indispensable factor in the development of personal, social, and national life. A recognition of music as an integral part of the educational system on the elective plan would broaden the training of the musical profession.

Among general benefits may be enumerated: the fact that vocal music is an exercise contributory to health, and is to some degree a safeguard against those diseases which affect the breathing organs; its favorable influence on the personal and national voice; the value of music, with or without words, in widening the range of cultivation and social enjoyment, and in developing the sense of rhythm and form in literature.

Popular education, or the training of the people, tends to a recognition of every subject of instruction at due valuation. It moves strongly in democratic lines, both in securing opportunities to every member of society, and also adequate treatment of hitherto neglected subjects. The aristocracy of school subjects may thus yield to a more just and democratic educational spirit. The elective idea, which is already well established, and which, properly guarded, is evidently destined to expand, has a bearing on the introduction of a subject of this kind into the body of public instruction. These tendencies, implied in the democratic idea and the elective method, make the present a favorable time for a consideration of the claims of music.

Some of the disadvantages, not to say evils, of the present neglect of music in public education are well understood. Among them we cite a frequent example:

A youth reaches the high-school age, desiring to study music with a serious purpose, which desire is approved by parents and teachers. He is met by these school conditions:

1. He must add music to his high-school course as an out-of-school study, and thus run the peril of overcrowding—a condition which occasions much parental complaint, and may result in permanent injury to the pupil; or,

2. He must drop music, which, in the deliberate opinion of his advisors, may be to him one of the most valuable studies of the high-school period; or,

3. He must leave the high school; for the present school system neither teaches, credits, nor favors the serious study of music. As affirmed by an experienced high-school principal, most pupils of decided musical talent, who continue the study of music, drop out of the high school, and thus lose the advantage of the liberal courses of study there furnished.

These conditions affect the college and higher education as well as the lower schools, and work detriment in various ways. They make it difficult for parents to carry forward the musical education of their children and at the same time to secure the general high-school advantages. They curtail the opportunity of the musical element of society for literary and general training. They lessen the efficiency of the teachers and interpreters of music. Thus, in a word, they detract from the value of an important social agency. The exclusion of music from the body of instruction is believed also to impair literary technique in prose and verse, and to produce a needless separation of music and literature to the detriment of both arts.

The foregoing suggests certain pedagogical and related questions which may be embraced under these general heads:

AA. The content and method of high-school musical instruction.

BB. Time allotments and correlation to the body of instruction.

CC. Qualification of teachers.

DD. Cost.

In this connection, the conference begs leave to submit the appended outline of a high-school music course and subsequent statements.

ELECTIVE COURSE IN MUSIC FOR HIGH SCHOOLS

AA, BB. CONTENT, METHOD, TIME ALLOTMENTS, CORRELATION

INTRODUCTORY.—It is assumed that all who elect the high-school music course wil have acquired, as a result of earlier training, a familiarity with signatures, major and mino scales, the various rhythms in common use, the more common terms and signs of expression and movement, and the nomenclature involved in the foregoing. If such elementary knowledge is lacking, it should be at once supplied by thoro drill.

FIRST YEAR

A. *Introduction to harmony.* (Two recitations per week.)

B. *One of the following* (two recitations per week):
   (1) *Piano.*
   (2) *Voice.*
   (3) *The organ, or an instrument of the symphonic orchestra.*

A. *Harmony.*—The aim shall be to develop, thru the co-operation of eye and ear, (1) the sense of the three primary chords in major and minor as called for in the harmoniza tion of simple melodic phrases, and (2) the perception of the intervals of the major and minor scales; writing from vocal or instrumental dictation, and recognition from printed page (inward hearing); correct progression of voices not to be insisted upon.

B. (1) *Piano.*—Rudiments of music as noted in INTRODUCTORY, and the study of pieces such as the easiest of the *Jugendalbum* of Schumann.
   (2) *Voice.*—Such control of breath and tone production as is necessary to sing easily *vocalises* of the difficulty of Concone, *Opus 9*, and simple songs not requiring great range of voice or much emotional or dynamic force.
   (3) *The organ, or an instrument of the symphonic orchestra.*—The course pursued under *Piano* and *Voice* will indicate the scope of the course for the organ or instruments of the symphonic orchestra, which course may be outlined by any competent master.

SECOND YEAR

A. *Harmony, elementary harmonic analysis, elementary form.* (Two recitations per week.)

B. *One of the following* (two recitations per week):
   (1) *Piano.*
   (2) *Voice.*
   (3) *The organ, or an instrument of the symphonic orchestra.*

A. *Harmony.*—(Rudimentary knowledge of piano-playing required.) The end in view: ability to harmonize simple melodies on paper and at the piano with triads (except leading-tone triad) and the dominant seventh, with inversions. Modulations to next related keys included (dominant, sub-dominant, relative minor or major); to be done in all keys, major and minor, ear-training being confined primarily to chords in the fundamental position. *Elementary form:* the structure of periodic melody, eight- and sixteen-measure sentences, and their normal subdivisions; cadences as marks of punctuation. *Harmonic analysis:* simple hymn and song forms suggested.

B. (1) *Piano.*—Pieces of the grade of the *Sonatinas* of Clementi and the more difficult of the *Jugendalbum.*
   (2) *Voice.*—Ability to sing *vocalises* of the grade of Concone, *Opus 10*, and songs requiring greater range and flexibility of voice, and more emotional power.
   (3) *The organ, or an instrument of the symphonic orchestra.* (See under First Year.)

THIRD YEAR

A. *Harmony, advanced harmonic analysis, elementary counterpoint (part-writing), form.* (Two recitations per week.)

B. *One of the following* (two recitations per week):
   (1) *Piano.*
   (2) *Voice.*
   (3) *The organ, or an instrument of the symphonic orchestra.*

A. *Harmony.*—End in view: harmonizing of melodies and figured basses, the added voices to be made more interesting; the means suggested are: passing notes, suspensions, chromatic alteration. *Two-part writing* with special reference to clear melodic outline, and natural harmonic basis. *Harmonic analysis and form* continued by the analytical study of the *Sonatinas* of Clementi, simple sonatas of Haydn and Mozart, selections from the *Chorales* of Bach.

B. (1) *Piano.*—Pieces of the grade of the variations on *Nel Cor Piu* of Beethoven and the easier of the *Opus 72* of Mendelssohn.
   (2) *Voice.*—Mastery of advanced *vocalises*, and songs of the grade of Mozart's easier songs.
   (3) *The organ, or an instrument of the symphonic orchestra.* (See under First Year.)

Fourth Year

A. *Counterpoint, biographic history.* (One recitation per week.)

B. *One of the following* (two recitations per week):
   (1) *Piano.*
   (2) *Voice.*
   (3) *The organ, or an instrument of the symphonic orchestra.*

C. *Ensemble.*—Alternative for choral work. (One recitation per week.)

A. *Counterpoint.*—The end in view is to develop the power to use in a free and more artistic way the material already presented. *Biographic history:* the end in view is the acquirement of historical knowledge, based upon a study of those masters who since 1700 have specifically influenced musical development. This study should embrace a concise historical introduction, an account of the personality of the great masters, their environment and connection with contemporary epoch-making literary and historical activities, and as full an examination of their works as possible. The teacher may use a syllabus for this purpose, and may connect these biographical studies by brief historical interludes.

B. (1) *Piano.*—At the end of the course pupils should be able to play on examination, with a musicianly regard to tempo, phrasing, and expression, such pieces as the easier sonatas of Haydn and Mozart, and the little preludes of Bach, and to play at sight, in the manner indicated above, such pieces as the first five of the *Jugendalbum* of Schumann.
   (2) *Voice.*—The easiest songs of Schumann, Schubert, Franz, and other songs of modern composers, demanding some degree of dynamic force, breadth of style, and dramatic power, to be sung with appreciation of their musical content.
   (3) *The organ, or an instrument of the symphonic orchestra.* (See under First Year.)

C. *Ensemble.*—Where conditions permit, a choice or combination of the following is suggested: orchestral practice; studies in chamber-music; systematic studies of larger works used in choral practice.

Note 1.—In the record of instrumental study (to be presented at annual examination) only compositions of classical excellence should be considered in estimating proficiency. Bach, Haydn, and Mozart should be among the subjects on the program for at least a year in the aggregate, and other available classics should have due representation. Aside from these requirements, any approved material and methods may be employed in acquiring technique and musical knowledge. The analysis of structure and form prescribed in Course A should be fully tested in all pieces for examination, and intelligent, faithful, and musicianly reproduction of the given texts is expected.

Note 2.—To be noted in connection with voice: distinct enunciation in song-singing; cultivation of ensemble-singing, duo, trio, quartet; practice in sight-reading; regular choral practice to be omitted only in a few exceptional cases; care to be exercised as to public appearance of pupils as soloists.

NOTE 3.—The general use of automatic instruments capable of rendering symphonic works is recommended, as the best means ordinarily attainable, to develop a high degree of familiarity with the content of standard works in large form.

CC. QUALIFICATION OF TEACHERS

In this, as in other leading subjects, a teacher should have thoro knowledge of the subject to be taught; in addition thereto, an academic degree, or its equivalent in teaching experience. It is believed duly qualified teachers of music may be obtained as readily as in other subjects. A demand for such teachers would be met from existing sources, or would create a supply in the near future. State, city, college, or other educational authority might set a standard which would soon become general, and might take the form of a system of certification, a registration of teachers, or the like.

DD. COST

The introduction of a new subject may not involve increased cost to the taxpayer. Pupils taking the new subject will probably omit some other subject, and a corresponding reduction of teaching expense at another point may result. Moreover, it is public economy and a wise policy to develop a comprehensive and adaptive educational system; for otherwise the time, talent, and opportunity of many pupils, as well as public-school resources, are to a greater or less degree wasted.

If, however, the expectation of increased cost be an obstacle to a better recognition of music as one of the leading subjects in public education, the conference suggests that, in many cases at least, parents are willing to bear the cost of musical education, as they now do at considerable expense and under great educational disadvantages. Private schools and private teachers may still conduct such education. The public-school system may, after satisfactory tests, give credit for such study at due valuation. This practice is already established at a few points in this country. In other connections and subjects examinations are frequently arranged by those who have not given the preliminary instruction, as examinations for civil service, college-entrance, law, medicine, etc. There is no valid objection to the use of such a plan by the public-school system, if public preference or necessity so requires. This plan involves no public cost.

At a final meeting of the Conference on Music in Public Education, held in Boston on February 20, 1904, the foregoing prefatory statement and report were adopted. The Co-operative Committees of the Music Teachers' National Association and of the Music Section of the National Educational Association, concur in the above action.

H. C. MACDOUGALL, *Chairman*

W. SCOTT, *Secretary*.

DEPARTMENT OF BUSINESS EDUCATION

SECRETARY'S MINUTES

FIRST SESSION.—TUESDAY, JUNE 28, 1904

The session was opened in the auditorium of the Mines and Metallurgy Building, Universal Exposition, at 2:30 P. M., by the president, Cheesman A. Herrick, of Philadelphia, with an address on "Old Wine in New Bottles."

This was followed by a description of the commercial exhibits at the Exposition by Carl C. Marshall, author and publisher, of Cedar Rapids, Ia., under the title "The Work of the Private Commercial Schools as Illustrated in the Exhibits at the St. Louis Exposition."

The topic was discussed by Robert C. Spencer, president of Spencerian Business College, Milwaukee, Wis,; George W. Brown, Jacksonville, Ill.; Peleg R. Walker, superintendent of schools, Rockford, Ill.; and President Edmund J. James of the Northwestern University, Evanston, Ill.

The last speaker of the session was Miss Minnie Bronson, superintendent of elementary and secondary education, Department of Education, Louisiana Purchase Exposition, who read a paper on "The Resources of the United States as Illustrated by the Louisiana Purchase Exposition."

The president then appointed the following Committee on Resolutions:

William C. Stevenson, of Maryland. R. A. Grant, of Illinois.
Enos Spencer, of Kentucky.

The department adjourned to Thursday, June 30.

SECOND SESSION.—THURSDAY, JUNE 30

The second meeting of the department was called to order at 2:30 P. M. by Vice-President H. B. Brown.

The topic for the session, "The Report of the Committee of Nine," was taken up as follows:

1. "From the Standpoint of the Independent School of Commerce," by James J. Sheppard, principal of the New York High School of Commerce, New York city.

2. "From the Standpoint of the General High School," by Bertrand DeR. Parker, principal of high school, Rockford, Ill.

General discussion, led by J. Remsen Bishop, principal of Walnut Hills High School, Cincinnati, O.

Discussion followed, led by D. W. Springer, of Ann Arbor, Mich., chairman of the Committee of Nine.

Mr. Springer then presented the following:

REPORT OF THE COMMITTEE OF NINE

Your committee was requested at the last meeting to complete the contemplated monograph so that it might be available for this session. We would respectfully report that during this month the same has been issued as a publication by the University of the State of New York, being Bulletin 23 in Series K, the price of which is 20 cents.

We desire to express our thanks to the regents of the university for affording the means of placing the same before the commercial teachers of this country.

D. W. SPRINGER, *Chairman.*

It was voted that the report be accepted and the committee discharged.

The Committee on Resolutions presented a report which was adopted.

The officers elected for the ensuing year are:

President—W C. Stevenson, Decatur, Ill.
Vice-President—H. B. Brown, Valparaiso, Ind.
Secretary—John A. White, Moline, Ill.

The department then adjourned.

THOMAS H. H. KNIGHT, *Secretary.*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS—OLD WINE IN NEW BOTTLES

CHEESMAN A. HERRICK, DIRECTOR OF SCHOOL OF COMMERCE, CENTRAL HIGH SCHOOL, PHILADELPHIA, PA.

It has been the experience of many of those here gathered to be called upon to explain just what is meant by the kind of education for which this department stands. I have thought it might prove profitable, and certainly it will not be uninteresting, to attempt a statement of the relations of the new and the old in our system of thought. I have pleasure, therefore, in inviting your attention to the theme of the old wine of culture in its relation to this later age in which we are called upon to live and work.

The Hebrew "speaker in assemblies" declared that there is no new thing under the sun, and affirmed of a thing thought to be new that it hath both been long ago in the ages which were before us. At times we talk of new schools of art and literature, and new systems of education, as tho they were real things, and yet when we begin to examine the old and note comparison, we find that the supposed new is surprisingly like that which has preceded, and that in all branches of modern life we are only living up to the accomplishments and the promises of the long ago. But more than this, the development of the later age is necesssary that we understand the full meaning of what was earlier written or done. Of genius it may be said that it expresses eternal truth, but in a language often unintelligible to its own time. It is only the unfolding of life in a later age that gives the data from which can be understood the larger meaning of a great truth. Poets were long ago reputed to express wise things which they did not themselves understand. The supreme achievement of literature is the universalizing of an era—the projection of an age, and the binding of it both to the past and the future. Thus it is that truly great writings are always modern; thus life is unfolding, and each epoch furnishes the experiences that enable us better to understand the universal truth of earlier times. It is eminently proper that our department, one of the latest and up-to-date sections of the National Educational Association, should regard the relation of the present to the past.

Men of the present talk as tho they were the originators, or creators, of

many things of which they are, after all, only the inheritors and perfectors. The modern loose-leaf ledger, and card-index ledger systems are but an adaptation of the clay-tablet method of keeping accounts, practiced in Babylonia more than four thousand years ago. The Babylonian tablets were superior to the modern devices in that they did not require fireproof safes. Seals, witnesses, consideration, security, and many other phases of modern contract proceedings are all found in the early dawn of history. As one looks farther, he sees that many so-called modern business customs find their precursors and their suggestion in practices of the hoary past.

If for a moment we turn our thought to the economic organization of modern society, there is little to excite our admiration by way of newness. Economists talk of trusts as an essentially modern phenomenon, and assure us that they are the consequence of new methods in the production and exchange of goods; but on examination we find that the monopoly privilege has been bestowed upon their favorites by rules from time immemorial, and they were bestowed for the same reason, and their operations were actuated by the same motives, that lie back of the modern monopoly. The Tudors in England kept giving additional privileges until necessities as well as luxuries were in the grasp of those moved by their own greed rather than the public good. Iron, oil, vinegar, coal, starch, leather, yarn, glass, and many other articles were included. No sovereign bestowed monopolist privileges more freely than did Elizabeth, and no event of her remarkable reign is more striking or fraught with larger meaning than was her withdrawal of these privileges on petition from the Commons. Legislation for the regulation of monopolies was enacted in the time of James I., but the abuses did not disappear. The whole question was later discussed by Sir John Culpeper in a speech before the Long Parliament. He gave a list of monoplies and particularized as to their influence, speaking in general terms that present anti-trust agitators might find suited to express their sentiments:

> They are a nest of wasps—a swarm of vermin that have crept over the land; . . . . they sup in our cup, dip in our dish, sit by our fire. These are the leeches that have sucked the commonwealth so hard that it is almost hectical.

A case still cited as precedent was brought in the English courts; it was to dissolve a monopoly for the sale of playing cards, and, as reported by Coke, is still termed "the case of monopolies." Late decisions to dissolve mergers and the like are in accord with the reasons for dissolving this monopoly as is given in the report of Coke: a monopoly in restraint of trade is against both the common law and numerous legislative acts.

But provisions for the control of monopolies are older than the rise of the English law. The economic conditions from which monopolies grew were found in the ancient world, and monopolies have existed from a very early time. Zeno, the prefect of Constantinople, found conditions not unlike those of our own period, and in 483 A. D. he issued an edict that, if enforced, would likely have made him the greatest force for the control of trusts of which we

have any knowledge. In an age of attempted trust control the message from Zeno cannot fail to interest:

We command that no one may presume to exercise a monopoly of any kind of clothing, or of fish, or of any other thing serving for food, or for any other use, whatever its nature may be, either of his own authority, or under a rescript of an emperor, already procured, or that may hereafter be procured, or under an imperial decree, or under a rescript signed by our majesty; nor may any persons combine or agree in unlawful meetings that different kinds of merchandise may not be sold at a less price than they may have agreed upon among themselves. Workmen and contractors for buildings, and all who practice other professions, and contractors for baths, are entirely prohibited from agreeing together that no one may complete a work contracted for by another, or that a person may prevent one who has contracted for a work from finishing it; full liberty is given to anyone to finish a work begun and abandoned by another without apprehension of loss, and to denounce all acts of this kind without fear and without costs; and if anyone shall presume to practice a monopoly, let his property be forfeited and himself condemned to perpetual exile. And in regard to the principals of other professions, if they shall venture in the future to fix a price upon their merchandise and to bind themselves by agreements not to sell at a lower price, let them be condemned to pay 40 pounds of gold. Your court shall be condemned to pay 50 pounds of gold if it shall happen, through avarice, negligence, or any other misconduct, the provisions of this salutary constitution for the prohibition of monopolies and agreements among the different bodies of merchants shall not be carried into effect.

Thus, as our boasted new age is not so new, so our heralded modern economic problems are not so modern.

Nor do the statements just made detract from the interest or importance of the present. Truly great work in literature, music, architecture, etc., has been characterized by a singular lack of originality. The pre-eminent literary genius of the English race was so wanting in this particular that his authorship has been called into question. Both language and subject-matter of his plays follow other writings which had preceded. In addition to the use of the chronicles of Holinshed and Hall, and the North Plutarch which had just appeared, Shakespeare drew largely from legends and traditions current at the time he wrote. A modern scholar has found the single eastern tradition of the merchant of Tyre which was used by Shakespeare, in at least a dozen languages and literatures, and in all of them it exists with but slight variation.[1]

In music the facts are not less striking. Wagner did not, as is often thought, create his art out of his own personality; he but put the stamp of his genius upon much that preceded him, and his service to the world was in his ability to unify, co-ordinate, and re-express the work of other men.

But in the midst of a great architectural triumph we can better understand the dependence of modern architecture upon the work of other ages and other peoples. We have sometimes felt that architects are too slavishly following the tastes and styles of earlier times. Greek, Italian, Renaissance, Gothic, Spanish, and Colonial are terms and styles known even to the uninitiated. Modern buildings are largely cast in the molds of the builders of the long ago.

[1] SMYTH, *Appolonius of Tyre* ("Publications of American Philosophical Society").

This interrelation and interdependence of past and present may become a unifying principle for the study of history, and, when it is adopted, history is a subject of first importance. The practical value of this subject has been questioned, but correct notions of what history is will promptly remove all question. The past calls forward to the present, and the present calls back to the past, in so many ways that history is found to be one, and this organically related in all its parts. Many of the so-called problems of the present have been met in the past, and important contributions made toward their solutions. Then let us hesitate before dismissing historical studies from schemes of education that are practicable in aim.

Again, modern developments make us better able to understand the history of the long ago. The commercial era in which we are living has contributed the data, both in range of experience and interest, to make antiquity real. The writer found a new flood of light thrown on Greek tradition and history when he came to a study of the industry and commerce of Greece as part of the great world-movements in the evolution of production and trade. Jason and his Heroes in quest of the Golden Fleece indicates the early commercial spirit of the Greeks and their interest in the rich products of the Euxine and the lands beyond. Either an actual fleece used as a sieve to catch the particles of gold held in the water, or priceless fabrics "woven in the land of sunshine," gave the basis for the tradition. The legend of Cecrops, his settlement at Athens, and the introduction of agriculture embody and symbolize the Egyptian influence in early Greek history; similarly, the legend of Cadmus and the introduction of the alphabet indicate the Phœnician influence. All of us, I am sure, have been mystified by the Trojan war stories, but when we see in that war an early illustration of the conflict between the East and the West, a conflict still going on, the war becomes more real. The rape of Helen meant what were likely frequent forays into the Ægean, with the plundering of property and the carrying away of Greeks as slaves. The Greeks were not safe so long as the powerful Trojan city occupied the outpost of Asia and fronted Europe. Troas had a strategic and commercial importance much greater in the ancient world than is the importance of Constantinople in modern times. Present interest in matters economic and commercial make us better able to understand the meaning of the war against Troy. All Greece did not go forth to recover one woman of questionable character, and to punish her abductor. Greece was fighting the battle for national existence and for the existence of a western civilization. It was this conception of the Trojan war that led a modern writer to say that, when understood, it was the one event of ancient history; but what I wish to emphasize is that it was an event of interest to us, and one which our interests enable us to understand.

Let us remember that these and other traditions were born in the infancy of a race and a civilization. At such a time an influence could best be understood by impersonating it. In my family are young children to whom wind, rain, thunder, sun, and moon are persons, and these are always referred to as "Mr.

Wind," "Mr. Rain," "Mr. Thunder," etc. Wind and rain are thus made to sing a lullaby, while the thunder's roar and the lightning's flash have no terrors. I do not believe that these children will continue to personify forces, but at present forces are real persons. Nor do I believe that we should go on holding blindly to the childhood traditions of Greeks and other peoples. Neither should these traditions be dismissed as foolish. The personality in them embodied tendencies and influences of a period of development. The interests of recent years are enabling us to retain the traditions and discern their real meaning by resolving the personalities into the forces which lay back of them and which they typify.

What has preceded in this paper can but give emphasis to its closing statements: the *new* in our system of education should include much that has been long established; and the so-called *old* finds new interest and added value from having regard for present life. Thus the new education and the old education tend to come together. There is much less of difference than is supposed between what has been termed "cultural education" and the education for which this department stands. We are, after all, dealing with the same fundamental problems, and as it would be lamentable for those promoting commercial education to cut themselves off from the influences of culture, so those fostering cultural education will find their task easier and more effective by increased regard for the conditions and requirements of the times in which we live. Much of the wine of our historic culture can and should be handed on in the new bottles of economic thought, and life.

THE WORK OF THE PRIVATE COMMERCIAL SCHOOLS, AS ILLUSTRATED IN THE EXHIBITS AT THE ST. LOUIS EXPOSITION

CARL C. MARSHALL, AUTHOR AND PUBLISHER, CEDAR RAPIDS, IA.

Mr. President, Ladies and Gentlemen:

My opportunities for observing and reporting accurately the exhibits of private commercial schools have been somewhat restricted, as I reached the Exposition but a few hours ago. Considering the fact that there are over sixteen hundred commercial schools in the United States, besides numerous commercial departments in seminaries, colleges, etc., it is very remarkable, and somewhat discouraging, to note that there are but a dozen or so of commercial schools represented in the exhibits of the Educational Building. It is gratifying, however, to me to be able to report that these exhibits are, as a whole, of an exceptionally high character. Perhaps I cannot perform a better service to those present than to indicate briefly the location and nature of these exhibits.

Commencing at the southwest corner of the Educational Building, we

have the unique and remarkable exhibit of the Brown's Business Colleges. These schools, sixteen in number, and located in various cities of Illinois, Indiana, and Iowa, are represented by an active working school, fully equipped with the most modern appliances for business education; the pupils being instructed daily in public, by a corps of competent teachers. The branches include shorthand, typewriting, business arithmetic, bookkeeping, and penmanship. This exhibition attracts crowds of interested teachers during every hour of its continuance, and will well repay your careful consideration.

In the same part of the building occupied by the Brown Schools are a number of special exhibits of business-school text-book publishers, and some private schools. Among the latter is a small, but very creditable, exhibit by the Salem Business College, of Salem, Mass., conducted by Mr. George P. Lord.

In Section 6 is a remarkable exhibit by the Jones Commercial College, of St. Louis. Bookkeeping, shorthand, typewriting, penmanship, and telegraphy are here illustrated, and some exceptionally fine examples of ornamental pen-drawing. Among the latter is a reproduction of a well-known painting, "The Crucifixion," which is said to be the largest drawing of its class in the world. This work was executed by Mr. S. M. Falder, of the Jones Commercial College. Another small, but creditable, exhibit is that of the Spencerian Business College, of Louisville, Ky., illustrating school work in type-writing, shorthand, penmanship, and bookkeeping. In the Kentucky section is another excellent exhibit by the Bowling Green Business College. In this collection may be seen some very fine ornamental penmanship.

Other creditable exhibits which may be seen in the respective state sections are those of the St. Mary's Academy, Sturgis, S. D.; Harris Business College, Jackson, Miss.; the Albany Business College, Albany, N. Y.; the Henley Business School, Syracuse, N. Y.; and the Spencerian Business College, Cleveland, O. In the exhibit of the Albany Business College are some fine pen-drawings, the most notable being copies of Rose Bonheur's "Horse Fair," and the "Chariot Race from Ben Hur." A very notable exhibit, from the educational point of view, is to be found in the Iowa section, organized by Mr. A. N. Palmer, and representing the penmanship work done in a large number of the grade schools that are using Mr. Palmer's system of muscular writing. This exhibit appears to be the only one of its class in the Educational Building, and shows, in a convincing way, what may be accomplished in elementary schools by teaching penmanship rationally.

I wish to call your attention particularly to the extensive use of photography in the business-school exhibits. By this method the work of the class-room may be shown, and a very realistic idea of the actual equipment of the school may be obtained.

Altho I am not conversant with the work that has been exhibited by business schools in former expositions, I am reliably informed that the exhibits at the present Exposition far exceed, both in quantity and merit, those of any

previous one; and that the schools, few in number tho they be, that have shown the enterprise to place such exhibits in the Educational Building deserve the highest commendation from all who are interested in the progress of business education.

DISCUSSION

Robert C. Spencer, president Spencerian Business College, Milwaukee, Wis.—All the interests of life are reciprocal; and whatever is reciprocal and social is commercial. We are approaching a recognition of this broad principle in human life. I congratulate the age on the extension of commercial education into the public schools—a movement instituted by the pioneers and founders of the private schools of America. When an analysis shall be made of educational forces, we shall find that high honors are due these men. Cordial relationship should exist between the private commercial schools and commercial high schools.

George W. Brown, Jacksonville, Ill., expressed himself as both surprised and gratified at the interest shown by the general public in his model school exhibit. He has a brief program presented each hour, which takes about twenty minutes. The work is necessarily somewhat superficial, but it is illustrative. At the beginning of each lesson there are often but a few people present, but before the end, the pavilion is generally full.

Mr. Brown extended a cordial invitation to those present to inspect the school, and closed by mentioning the several firms whose co-operation had made the exhibition interesting and valuable.

Peleg R. Walker, superintendent of schools, Rockford, Ill.—The interest in commercial work has been steadily gaining. Beginning with the introduction of bookkeeping some five or six years ago, other subjects have been added in the schools under my control, until now the commercial department is well defined and business men are asking for graduates from that department.

Edmund J. James, president of Northwestern University, Evanston, Ill.—When I was preparing for college I became acquainted with a young man who was very much interested in commercial subjects, and I absorbed some of his ideas; so much so that I took commercial education as the subject of my graduation thesis. The principal expressed himself as very much disappointed that a pupil who had been so carefully prepared in the classics should take such a subject, and as a result of this pressure I gave up the subject of my choice and took instead "The Scholar in Politics." But later I have drawn some of my thunder from that early essay which marked the beginning of my interest in commercial education.

This, like many of the valuable things in education, has come to us from the outside. The community at large was making demands which the private schools were trying to supply. The public schools would not consider the matter, and when I first began to appeal for recognition for commercial work, it was with little success. But now all this is changed. We are face to face with a crisis. We have won the public. Everybody says: "What shall we do, and how shall we do it?" I am not so ready to answer that question as I was ten years ago, but there are some things we can agree upon.

The work must be practical enough to meet the requirements of business men; it should be disciplinary enough to enable the student to take up the broader training of the college, for the colleges are beginning to recognize the value of the commercial subjects.

We are making text-books, and the first text-books will probably not be successful. Those of you who remember such books as Steele's *Fourteen Weeks in Physics*, and compare it with the splendid text-books we now have, will realize the advancement we have made in the matter of text-books; and yet these were valuable books in their day, and I

imagine that the first text-books in commercial subjects will be as immature as the *Fourteen Weeks in Science*.

But there is no reason why we should not get out of the preliminary stages. The future is assured, if we can solve the problems of the present.

THE RESOURCES OF THE UNITED STATES, AS ILLUSTRATED BY THE LOUISIANA PURCHASE EXPOSITION

MISS MINNIE BRONSON, SUPERINTENDENT OF ELEMENTARY AND SECONDARY EDUCATION AT THE LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

It would be an easy matter, tho perhaps a little tedious, to enumerate all the thousands of resources here presented by the United States, and to show you where they are exhibited; but I cannot insult your intelligence by telling you that our exhibit in cereals, cotton and tobacco will be found in the Agricultural Palace, or that the pomological exhibit contains plums, pears, peaches, cherries, and grapes. Neither can I question the efficiency of our bureau of exploitation by assuming that you are any more ignorant than I of what is here or where it is to be found.

The problem of exhibiting the resources of any country is a difficult one, for the resources of a country are not all natural or industrial; there are also social and economic resources. The former lend themselves readily to exposition work. In fact, until this time expositions have been chiefly a comparative display of commercial products, significant only of material progress, illustrative only of the ways in which money may be earned and spent. Any exposition is necessarily something of an advertising medium. It is the outgrowth of the old week's end market in the country village, where in a vacant lot stalls were erected for a display of the various products of the country around. The potatoes and other vegetables of the farm occupied one tier of stalls; the chickens and ducks, another. The knitting and needlework of the farm women were displayed for sale or emulation.

From these small beginnings, up thru the county fair and national display, developed the great international competition, conceived of fifty odd years ago by Prince Albert, which had for its object the bringing together of men and things, whereby it was held that they would reveal the chief industrial and scientific gains made thruout the world, and would enable men of action and friends of progress everywhere to understand one another better than mere correspondence or the reciprocal notoriety of their achievements could render possible. From that time and little by little the true character of expositions has been modified. The effort has been constantly to give these exhibitions a form less badly material. Gradually it was deemed inadequate and unreasonable merely to heap together masses of people and things, and it became the aim of exposition organizers to display ideas rather than things. These gatherings nevertheless continue to compose their chief display of the natural

resources, and the implements and materials used in the practice and support of the industries of the world. The reason is readily found in the difficulty of displaying what may be termed the social and economic resources of the country, and no nation is adequately represented which does not supplement its material display by revealing the sources of its progress or the causes of its failures.

For example, to the St. Louis Exposition have come the nations of the world, bearing the fruits of their soil and the products of their manufactories. These nations do not differ materially in the character of their exhibits or the effectiveness of their displays. If there is a difference, it is due chiefly to the amount of money appropriated by their various governments. Yet these countries are not equal either in productiveness or effective life, and in so much is the story of the Exposition untrue.

The nations of the globe are rich or poor in natural resources. One country needs but a turn of the plow to produce a harvest, while another was won from the sea foot by foot with great toil and fighting. To these soils came a people, in one case a lazy, indolent, or inferior race, which was content to take the bread that nature so abundantly furnished; in the other, a sturdy, intelligent, enduring man, capable of making the desert to bloom. It is apparent that the richest resources are insufficient to place a nation in the van of progress. On the other hand, a sturdy and independent race hampered by an inhospitable climate and an impoverished soil will likewise fail to achieve the highest national ideals. But there are still other forces which determine the effectiveness of nations and influence production. In my mind is the picture of a land of fair delight, its soil the richest in the world, its mountains abounding in valuable minerals deposits, and its sparkling streams carrying fertility to every foot of its broad domain. The perpetual sun and equable climate make this the garden of the gods. Its people are strong mentally and physically. It has given to the world the best in poetry and song, in art and science. Its sculptures adorn our palaces, and its music enchants our ears; but a continual warfare between church and state has stifled the spirit of progress, destroyed its ambition, and put it out of the race for supremacy.

This, then, is the problem of an exposition: How can it adequately represent those forces which have made nations powerful, or those which have proved their undoing? What are the resources of a country natural and social, and how are they made effective?

Upon America more than any other country are the eyes of the world centered as to the focus of contemporary life. We are ruling in men's thoughts as no other nation of the world. What has won for us our rank and influence? We are a youthful people; we possess but little art of our own, and but little history. What is the source of our extraordinary development? We have proved, by the implacable logic of our conceptions and acts, that we possess a practical spirit. What are our resources, physical and social, which have produced this spirit? These are the questions which the nations of the world are asking, and in the hope that a comparison might be produced which

would prove an effective answer and object-lesson, the St. Louis Exposition was projected.

The directors of the Exposition discerned at once that an exhibition of this nature could not fully attain the ends sought, if it were so restricted as to appeal only to the eyes of the public; that is, if it were merely to display results to visitors. They therefore arranged side by side with their exhibition of things the exhibition of processes. While they provided a place for the raw materials of food, clothing, and habitation, they supplemented these by the processes concerned in the industry of extracting them. They subdivided the vast exhibition of products into veritable laboratories corresponding to the most characteristic branches of industry and commerce.

But this was not all. They sought further to show by the agency of data, of documents, of striking object-lessons, what is being done everywhere and by all peoples to better the lot of man. And they made education the keynote of their classification. They sought to demonstrate how the advance of moral and physical hygiene must contribute to guide the destiny of nations into smoother channels; to show how the community, quite apart from charity, can, by social measures intelligently ordered, attain to mutual assistance and to the most assured provision for the future. And in the logical pursuance of this idea they made social economy the resultant of the classification.

Whether the ideals of the Exposition organizers have been attained can be determined only by a retrospective view. It is too early yet to tell. But as the exhibits here presented fall behind us, as the myriad of details robbed of their glamour condense themselves into a coherent picture, I believe that not only will the world be impressed with a deep sense of the vigor and vitality of our nation, but that it will deepen our realization of the motives and methods which have proved so efficacious in advancing the United States along paths intellectual, political, and humanitarian, and which have fitted us for the part we have to play in guiding the progress of the world. This enterprise will be successful only if it brings new faith and energy into our souls, and new belief into the minds of outside doubters.

REPORT OF THE COMMITTEE OF NINE, CONSIDERED FROM THE STANDPOINT OF THE INDEPENDENT SCHOOL OF COMMERCE[1]

JAMES J. SHEPPARD, PRINCIPAL OF THE NEW YORK HIGH SCHOOL OF COMMERCE, NEW YORK CITY

At the outset I would gladly recognize the very great value of the work undertaken and accomplished by the committee. It falls to them to do genuinely pioneer work in the field of secondary education, which in the immediate

[1] The Report of the Committee of Nine formulating a course of study in business education for the public schools was published by the University of the State of New York, Albany, N. Y., as Bulletin No. 23 in Series K and may be obtained by remitting 20 cents to the secretary of the university.—[EDITOR.]

future is unquestionably to be marked by great expansion. Other committees in times to come will doubtless present programs which diverge not a little from the one now in hand, but the work of the present committee will always be a starting-point. We shall have modifications of its conclusions, rather than radically new suggestions. It is a more difficult task than it may seem at first blush to prepare a commercial program suited for the great variety of secondary schools, working as they do under widely varying conditions, and the committee very wisely remarks that it does not expect its suggestions to be taken in their entirety in any one school.

I am asked to consider the committee's program from the standpoint of the independent school of commerce. It happens that at the present time there are few such schools, and of these scarcely two may be said to be working toward exactly the same end. Perhaps for just this reason a consideration of the committee's work is all the more important. For the present at least we must expect to find the independent commercial school in only large cities. Practically all secondary schools in large cities are confronted by the same condition—a large preponderance of pupils in the earlier years of the course. In New York city over 50 per cent. of the pupils are in the first year. The mortality in the metropolitan high school, due to a variety of causes, is a striking feature of the secondary-school situation. It means that the first year in the high school is to be looked at as a finishing period of education, rather than a beginning, and the maker of programs must seriously consider the question of selecting and eliminating topics of study. Some things which in the ideal curriculum might best be deferred until the later terms of the course must be brought forward, and yet other things which theoretically should find a place in the earlier terms must give way to topics whose importance is more pressing.

Another consideration of less weight, yet not altogether to be neglected, is the matter of transfers from one type of school to another. If the programs vary considerably, there is a serious loss to the pupil who finds after six months or a year that his inclinations lead him along lines best pursued in another school. With the rapidly growing importance of business education, the current sets toward, rather than away from, the commercial school. In New York we are obliged to fit into the program many boys who have spent some time in other institutions, and with us it seems desirable not to deviate too much in the general studies from the programs in the non-commercial schools, for the first year at least. Largely for this reason stenography is not introduced until the second term.

There are some general considerations which, to my mind, must have a determining influence on commercial programs—at least those designed for immediate use. Some subjects which are theoretically very desirable cannot be included until they have been thoroly worked out, and a body of really valuable material got together which can be presented in something like scientific order. We cannot in justice to the pupil replace a standard subject with something else that is not really as good. It is far better for him to spend his

time on something that is definite and exact, even tho it be not strikingly valuable from a commercial point of view, than to acquire a lot of vague information on commercial topics. A proper selection of commercial material, and a proper placing of emphasis on the various topics selected, is by no means an easy task. There is arduous work for the enthusiastic teacher for some years to come, along just these lines.

So much by way of a general statement. The preliminary remarks may serve as a sort of guide to the criticisms or suggestions I have to offer on the committee's program. I am glad that the committee did not think it wise to confine the program to three years. Short courses are always popular, but it is difficult to make them successful. There is a stigma of inferiority about them which is not easy to remove. Let us accept the fact that only a small proportion of the students will complete a four-year course, but remember that those who do will have a degree of preparation in comparison with the three-year student far greater than the mere excess of time devoted to the work would seem to insure. It is well to put before the student the possibility of really adequate preparation for the business career. It is all too easy for him to assume that only a little study is necessary.

Another point which calls for commendation is the inclusion in the program of practically all the standard secondary subjects, with the exception of Latin and Greek, which, even in the ordinary high schools, have none too secure a position in these days. In their place we have three important modern languages—German, French, and Spanish. It seems to me that there is more of profit to the commercial high school in the adaptation of the standard secondary subjects to commercial uses, than in the taking up of entirely new subjects. Practically all of them admit of application, in greater or less degree, to the purposes of a commercial course.

To the program itself, and first of all the first-year outline: If the commercial course is to be broadly serviceable, it must meet the needs of the great numbers who leave it after one year's attendance. It is therefore with surprise that I note the postponement of commercial arithmetic to the second year. Business arithmetic is much more important to the transitory pupil than is algebra. Indeed, both algebra and geometry are less susceptible of commercial application than almost any other subject in the course. When we have said that they afford excellent mental discipline, we have said pretty nearly all that can be said. But business arithmetic is essential, and it will not do to presume too much on the knowledge the pupil brings from the elementary school. Most teachers find their greatest difficulty in teaching bookkeeping to be the inadequate training of the pupils in arithmetic. The latter ought to precede rather than follow the keeping of accounts. Indeed, I question seriously the advisability of beginning bookkeeping in the first half-year. There are some reasons why it might well be postponed to the second year, tho it unquestionably has its value in giving the pupil the feeling that he is getting real commercial work, even tho it be not the most successful sort.

I have wondered why the committee omitted all science from the first year. Biology is a peculiarly suitable science for the first year. It is largely observational. It introduces the pupil to the study of life; and it permits of numerous commercial applications.

I am at a loss, also, to know why drawing is not given more attention, not only in the first year, but also in succeeding years. Drawing has not only great cultural value; it has also great commercial value. We have much to learn from Europe in the application of art ideas to manufacture. Indeed, so-called commercial art is of great and growing importance. To my mind a continuous course in drawing thruout the four years is very desirable, tho I confess its inclusion in an already crowded curriculum is by no means an easy thing.

Still another subject which would seem to deserve a place in the first year of a commercial course, if it is to be of use to the greatest number, is commercial geography. The committee has postponed this till the second half of the second year. I cannot agree with them that this postponement is either desirable or necessary, tho I freely grant that an advanced course in commercial geography can be made extremely serviceable in the late years of the course. It comes nearer to being the vocational study of the commercial school, in my estimation, than does the subject so designated by the committee—the history of commerce.

Stenography is omitted from the first year of the course, and indeed from the second year also. There may be good reasons for this, but my own experience is that it works out very well in practice to begin the teaching of shorthand the first year. The early acquaintance made with the subject enables the pupil to secure much practice during the later years of the course. The popularity of stenography as a study is unquestioned, and its disciplinary value is of a very high order. In my own school I should be inclined to give it more rather than less time in the first year.

So much by way of consideration of the program as laid down by the committee for the first year. I feel very strongly that important modifications must be made in it, if it is to meet the needs of the great numbers whose high-school careers are cut short before the second year's work is taken up. For the remainder of the program a consideration of the committee's proposal, as they touch the several important subjects, must be taken up in a general way, if I am not to transcend the limits set to this paper.

First as to English: One finds many excellent things in the recommendations offered, but, on the other hand, there are some other things which, to say the least, require explanation. Why should English be omitted entirely from the second half of the third year? Practice in writing, to be effective, must be continuous. Training in the proper use of the mother-tongue is altogether too important to be neglected, even for a half-year. But more surprising still is the suggestion that the history of English literature should be taught in the second year! Has it not been pretty definitely settled, after a half-century of English teaching, that a knowledge of literature itself is vastly more important

than a knowledge of literary history? As a corollary, it might be added that, if literary history is taught, it should be only after a number of typical masterpieces had been studied. To place the history first is to require the student to discuss movements whose nature he does not comprehend, and to comment on the style of authors whom he has never read. And why go over the history of literature a second time in the fourth year? Far better to study the thing itself than to study what some text-book writer says about it! Again, it strikes one that there is an unnecessary disregard of the needs of the occasional student who may wish to go to college. I see no reason why the ordinary course in English in the regular high school may not, with some slight modifications, be just as useful in the commercial school. In the written work there may be important adaptations to be made, but the great masterpieces of literature are to be studied for their own sake in one school the same as in the other.

I have already intimated that the omission of science from the first year of the course is a mistake. But science, as we know it, is omitted also from the second year. It may be said that the study of commercial products and of commercial geography constitutes a new science. Even granting that contention, I question whether really valuable work can be done without some preliminary knowledge of biology and chemistry. And for the present, at least, until the material of the new subjects has been thoroly worked out, I much prefer to retain the old subjects with their definitely settled educational values, and their numerous incidental possibilities of commercial application. A study of commercial products, following a thoro study of the elements of biology and chemistry, may be made extremely valuable; but if it is to go before, I fear that we must, for the present at least, sacrifice accurate and valuable scientific training to the acquisition of rather incoherent details of commercial information.

The important position given history in the committee's program is one of its most excellent features. If the proper emphasis is placed on the industrial and economic phases of history, it can be made an extremely valuable subject in the commercial curriculum. History is just coming to receive the important place it deserves in the secondary course of study, the significant contribution made by the Committee of Seven having secured something like adequate consideration at the hands of the makers of secondary programs. But I confess to disappointment at the arrangement suggested by the Committee of Nine. I should much prefer to have the study made continuous thruout the course, instead of having it assigned to half-year periods. The historical sense is one of slow growth, and any interruption in the continuity of the study makes the acquisition of the proper historical perspective more difficult. It seems to me far better to keep the pupil in the historical atmosphere thruout the entire secondary course, rather than to concentrate the work as the committee proposes. This would not necessitate a greater total time allotment than is suggested. Fewer periods per week would suffice. I am not sure that I would treat the history of commerce as the committee proposes. My experience is

that this thread of history, confessedly of great importance in a commercial school, can very well be followed thruout the entire work in history. If continental, English, and American history are properly taught in the business school, the student who has completed them ought to have a pretty thoro knowledge of the history of commerce. With a curriculum already overcrowded, I question the advisability of giving so much time to what ought to be, in very large part, only a review of the work previously carefully done, when it means the exclusion, perhaps, of the study of some science peculiarly important in the modern industrial world.

Civil government is treated as a separate subject of study in the last half of the fourth year. Whether this plan is commendable depends upon the way the study is carried on. With the liberal allotment of time given it, there is possible, not only some comparative study of government, but also due attention to state and municipal administration. But much more than this is desirable. Government, like all human institutions, is a growth, and a proper understanding of its development requires the historical treatment. For this reason many hold that it should be taught in conjunction with, rather than apart from, history. At best it seems unfortunate that a whole year should elapse between the study of United States history and the study of civics. If the two subjects are not to be coincident, it would seem highly advantageous to have one follow the other immediately, so that the numerous and important points of connection may be easily made.

Economics is very properly made a required study. It is often said that the high-school student is too immature to undertake profitably so difficult a study. This I think a serious mistake. The subtler aspects of economic theory are, of course, beyond him, but there are certain broad fundamental truths which have great significance in modern social and industrial conditions, which he can well grasp, and which are of very great value in guiding and correcting his thinking. If the subject did no more than bring before the student clearly the nature of present-day industrial problems, it would be extremely serviceable. But it does much more than that. It puts him on the way toward a solution of some of those problems. As a pure intellectual exercise, requiring the pupil to consider facts carefully and draw conclusions logically, it would be difficult to find another subject so practically efficient.

The program for mathematics is marked by the same lack of continuity that has been noted in the case of English and history. From the middle of the second year to the middle of the third year no mathematical work is prescribed. I can only repeat here what I have said in connection with other subjects—there is more of loss than gain in such interruptions. The recommendations for elementary business arithmetic are excellent, especially noteworthy being the "seven tendencies" of arithmetic as applied to business today. (The more general use of calculating machines might be added as an eighth tendency.) The outline for the advanced work in business arithmetic is very striking, altho it seems somewhat doubtful whether the proposed plan could

be carried out in practical school work. It is difficult to see how the meager preparation in algebra during one year's work (thru quadratics) could enable the student to study successfully, and at all exhaustively, subjects like "annuities," "insurance," and "mathematical problems relating to the installation of machinery."

To sum up, it seems to me that the committee has done a good piece of work in its choice of subjects and its suggestions as to the best methods of treating them, but much remains to be done before a really excellent commercial course can be put before those interested in the making of programs. The Committee of Nine opens the way, and its contribution will aid materially toward the solution of this very important problem of secondary education.

THE REPORT OF THE COMMITTEE OF NINE, FROM THE STANDPOINT OF THE GENERAL HIGH SCHOOL

BERTRAND DeR. PARKER, PRINCIPAL OF HIGH SCHOOL,
ROCKFORD, ILL.

The consideration of the topic assigned me must take into account the conditions surrounding the average general high school. Such a school is composed of both boys and girls, who must be taught in the same classes. In those classes will be many who are not following the full commercial course, but are anxious to supplement their other regular work with some of the commercial studies. The great majority of those taking the regular course will not go to college, but must take their place amid the competition of the business world as soon as they leave the high school. Most of them must begin with subordinate positions, and their chance of ever filling better places depends upon their ability to do well the work that is theirs at the beginning. If the young man is employed as a bookkeeper, he must be able to keep books; if as a stenographer, he must have the ability to do that definite thing well. Business men of today have neither time nor inclination to teach an apprentice, and if the work is not done as required, a week's trial ends the case; hence the importance of that knowledge and skill that give power to do.

Another condition in the general high school that must be taken into account is the fact that most of the more general subjects must be taught by the regular teachers in the regular classes, made up of pupils from all courses in the school. In a few of the very largest schools special teachers and special classes might be provided, but for all schools of less than one thousand pupils it seems to me that such a division is out of the question. The general classes must provide the course in mathematics, English, history (except the commercial), modern language, science, drawing, and perhaps in other studies.

With the peculiarities of the general high school in mind, I have the following criticisms to offer regarding the proposed course of study: Several of the

courses in individual subjects should be much extended and unified, so as to make continuous rather than broken lines of study, and others should be arranged so as better to suit the pupil's stage of advancement and better to correlate with the rest of the general course. Where the plan provides for two or three recitations per week the work should be intensified by providing for five, and, for the general high school, a much more flexible course of study should be offered, if all classes of pupils are to be well provided for.

For the average high-school students, I have little faith in the plan that provides for recitations one, two, or three times per week in any study. The amount of interest and enthusiasm lost by the divided method, the extra time and patience to review and get back into the subject—to warm up, as it were—after a day or two's lapse of work in a given line, is just so much lost energy. I suggest, therefore, that five periods per week be given to every study, and that the regular course consist of four subjects, thus making twenty recitations per week for the pupil who is doing full work.

With the committee's idea as to the importance of English I am in hearty accord, but with the time devoted to it and the arrangement of the course I cannot agree. The subject should be arranged in one connected course extending thruout the full four years, with five recitation periods per week. The extension of time from four to five times per week is about the only suggestion that I have regarding the first year's work in English. The second year I cannot pass so easily. It seems to me that the outline for that year's work is one of the remarkable things of the report of the committee. Second-year pupils are asked, in three periods per week for a year, to cover the history of English and of American literature, with a text-book in each, familiarize themselves with the political and industrial history of England and America, and read a large number of the best works of many of the authors studied. Perhaps I do not understand the recommendations, but on the face of it the plan looks most impracticable.

In the first place, to my mind second-year pupils are not prepared for the beneficial study of the history of English and American literature. The work of the second year should be a continuation of the plan outlined for the first—a study of masterpieces and composition—the object being to give to the pupil an increased power of literary interpretation and expression. Then, in the third year, instead of the piece-meal plan of the proposed course, let the study of the history of American literature run thru the year, much composition and rhetoric work being kept up with it, and the works of the authors studied as the lives of the men are taken up. In a similar manner the fourth year can be devoted to the history of English literature and the necessary composition work.

I think that the advantages of this plan are many. A continuous course of gradually increasing difficulty is established, the more difficult parts of the subject coming at a time when the pupils are best able to meet them. The work of the history classes will have given the historical settings without taking

the time of the English class to secure them, and the studies in industrial lines will have given an insight into the conditions of the people that will do much to aid in the correct understanding of any given literary period. It seems to me that the English course of the committee has been laid out with too little thought of what the pupil was doing in other lines, or of his ability to meet the requirements.

I cannot agree with the writer of the paper in the monograph that the subjects for composition should be drawn so exclusively from the English readings. They may well be chosen from incidents of his daily life, and frequently from his other studies. Why may not an essay or special report in history pass also the eye of the English teacher? and thus serve both as an English and a history exercise? Much time could thus be saved that the pupil could employ to good advantage. I heartily commend the recommendations that oral discussions and debates should form a considerable part of the English work. The use of what are called oral themes is another device of value. The business man of today and tomorrow must be able to express himself orally, and we are apt to slight this side of his education.

The recommended course in history seems to me to share the general fault of the whole plan: a short course followed by a break, another inadequate course, then another break, etc. The time allowed to each separate course, I think, should be doubled, and the history work be continuous thruout the four years, at least thru the first three years and a half. One semester for ancient history to 800 A. D. is altogether inadequate. The study should run thru the full first year of the course. Then, with no break, as in the committee's report, let the full second year be given to the next course in history, which, I suggest, should be mediæval and modern history, with special stress placed upon the history of England. This plan would give a much more complete view of the period than if English history is taught as the main topic, with reference only to that of other European nations. Instead of separating United States history and civics with a break of half a year between, let the two be united and form a continuous course in United States history and civics thru the third year. The history of commerce may follow in the first half of the fourth year, tho it might be advisable to provide for a year's study of the subject. I suppose that the thought of the committee in offering the short courses was that the time was needed for something else, and that the course as presented would give a sort of general view of the historical field. My experience with such courses has convinced me that the general outline course of, say, a half year on any of the great periods is much more apt to leave in the pupil's mind a confused and useless jumble than any clear general outline. The commercial student, perhaps above all others, needs to catch the spirit of the times, to get near to the peoples of whom he is studying; and I feel sure that the short, hurried course in history can never give him the insight into the actual conditions which should be his.

Turning to the courses of commercial geography and allied subjects, it

seems to me a mistake to expect second-year pupils, with as little preparation as their previous course offers, to get much out of the study of commercial products and commercial geography, The underlying causes and conditions surrounding the geography and history of commerce cannot be understood except thru the facts of physiography, and, if not learned before, time must be taken in the commercial geography class to teach them. Let, then, the second year be devoted to a course in physiography, the study of commercial products and commercial geography follow in the third year, and the course be rounded out in the fourth year by commercial law and political economy. This arrangement would bring the study of political economy into the last half of the fourth year, when the students will be prepared for it thru their courses in political and commercial history, and studies in commercial products and commercial geography. A course in political economy after such preparation ought to bring good results; without such preparation it is worth little, and it is a mistake to put it earlier in the course.

The courses in advanced commercial arithmetic and in banking and finance, it seems to me, are, as outlined by the committee, so far in advance of high-school pupils that they should be relegated to the college, except such portions of studies in finance as might properly come in connection with the political economy.

The half-year of plane geometry would prove as useless as the other scraps of work about which we have been talking. Geometry should be studied at least a year, or not at all.

The so-called technical work has the common fault. The bookkeeping line begins in the first year, runs a while a few times per week, stops half a year, begins again for half a year, then stops, etc. In that connection I should advocate the following: penmanship the first half of the first year, and commercial arithmetic the second half. Let bookkeeping begin in the second year, and extend thruout the year, with double or laboratory periods every day. In the third year, with the same double periods, should come office practice the first half, and accounting and auditing the second. Such an arrangement gives two consecutive years of bookkeeping, with an hour and a half's work each day. The work is concentrated and continuous, there are a beginning and an end, and the pupils ought to know something of the subject in a business-like way when they have finished the course.

It is clear that the changes I have suggested, and other less important ones that will be shown in an outline of the program which follows, must greatly modify the suggested course. I have not been present at any of the former discussions of the course, and so do not know very well the real reasons that have led up to the adoption of its different parts. The choice of subjects seems to me, in the main, admirable, but I cannot account for the many peculiarities of time and arrangement except upon the theory of compromise. The greater part of the principal courses are too short, scrappy, and disconnected. The special courses in each general subject should be broadened out, connected,

and arranged so as to make continuous courses whose constituent parts are logically connected, and whose relation to parallel and subsequent courses is pedagogical.

You ask how the courses can be so extended in an already overcrowded program, and the answer leads me to another fundamental mistake of the committee. In this day and age, it has tried to lay down practically a prescribed course. Commercial students who have battled for years against the hard-and-fast curriculum of the classical and scientific champions now forget their arguments and attempt to arrange one fixed course that students preparing for widely different lines shall follow. We ought to remember, I think, that the field designated by the phrase "commerce and industry" is not single and limited, like that included under each of the terms "law," "theology," etc., but that the variety of occupations covered is almost limitless. It includes more walks of life than all the professions combined, and to hold all students preparing for the commercial activities to the same course of study is no more logical than it would be to provide one single fixed curriculum for the minister, the doctor, and the lawyer, on the ground that they were all to engage in the professional callings.

The members of the committee have seen that a multitude of studies is needed to prepare for the many differences in character and purpose of those who are to take the course. They have cut up the subjects so as to get in something of each, and then offer the mixture as a good food for all. A much better plan would be to extend the courses in each subject to what they should be, require a few fundamentals, such as English and some history, and let the rest of the program of each student or class of students be filled out to suit the circumstances of the case. Of course, the choice would be of certain lines of study rather than of individual subjects. Certain prerequisites are necessary for any one of the studies of each year after the first; as, the penmanship and commercial arithmetic for bookkeeping; history, commercial geography, etc., for political economy. One student may want to work toward the theory of commerce, another toward an immediate business position. One may wish to become a stenographer, another a bookkeeper; and a good stenographer with little bookkeeping is a much more useful member of society, and is much more sure of advancement, than a person with a little of both subjects. The business world is today calling for the man who has command of some one thing. There is little need of one who has a smattering of everything. And the position of the world is about right. The smatterer is of little account wherever you may place him.

In the general high school, made up of all classes of boys and girls, fitting for all kinds of life-work, I am sure that the *best* hard-and-fast course would be a mistake. Especially would that be true if to make such a program the courses in the different subjects must be cut up as they are in that proposed by the committee. The longer and more complete courses, with plenty of option, is much the better plan for the general school; and it is my opinion that it would be equally beneficial for the special commercial high school.

The following outline shows the course modified in accordance with the suggestion that I have tried to make. It is understood that regular work comprises four subjects, with five recitations each per week. Subjects with double periods with no outside preparation are to be considered the equal in time, credit, and importance of prepared subjects with single recitation periods. The studies italicized are required; all others are optional, except for the logical limitations which have been set forth in the paper.

FIRST YEAR

FIRST HALF	SECOND HALF
English	*English*
Algebra	*Algebra*
Modern language	Modern language
Ancient history	Ancient history
Penmanship	Commercial arithmetic

SECOND YEAR

English	*English*
Mediæval and modern history, English trend	*Mediæval and modern history, English trend*
Modern language	Modern language
Physiography	Physiography
Plane geometry	Plane geometry
Bookkeeping (double period)	Bookkeeping (double period)
	Stenography and typewriting

THIRD YEAR

American literature and composition	*American literature and composition*
United States history and civics	*United States history and civics*
Modern language	Modern language
Commercial products	Commercial geography
Physics	Physics
Office practice (double period)	Accounting, auditing, etc. (double period)
Stenography and typewriting	Stenography and typewriting.

FOURTH YEAR

English literature and composition	*English literature and composition*
History of commerce	Political economy
Modern language	Modern language
Commercial law	Advertising, and study of trade journals
Chemistry	Chemistry
Stenography and typewriting	Stenography and typewriting
Free-hand drawing (double period)	Free-hand drawing (double period)

THE REPORT OF THE COMMITTEE OF NINE

J. REMSEN BISHOP, PRINCIPAL OF WALNUT HILLS HIGH SCHOOL, CINCINNATI, O.

In advance of any criticism or even comment, it is proper to express unbounded admiration for the thoroness and breadth of this report. The historical summary prefixed sufficiently indicates that this report was planned

and completed in the spirit of full and generous inquiry regarding the bearing of its subject-matter upon the established courses of study in the colleges, the high schools, and the normal schools. An extract from the preliminary report of the committee defines its attitude. It is brief and may be quoted in full:

> The course of study should be four years in length. . . . . The paramount factor in shaping commercial courses in public schools should be the welfare of the student who goes directly from the high school to his life-work. It is expected, however, that such courses will provide a training of such a character as will fit the student completing them to enter the college of commerce and industry now being established by many colleges and universities, as well as other modern courses in college and universities.
>
> We believe that, when possible, separately organized commercial schools are advisable; but we realize that in the great majority of places the work must be given in the regular public high schools as one of the several courses thereof. Commercial courses will include many subjects now taught in the public high schools, tho the methods of presentation in some cases may not be those best adapted to the needs of the business students. We realize that in most schools it will not be possible to organize separate classes in those subjects with methods specially adapted to meet the wants of commercial students.

Nothing could be more generous than this statement. It indicates that the committee fully realizes the practical difficulties in the way of introducing an ideal commercial course into an ordinary high school; and yet it strongly implies a belief in the mind of the committee that a satisfactory business course can be formed in such a school partially from existing material and partly from added material. It is in the spirit of this preliminary report that a few suggestions will be offered in this paper toward a practical solution of this problem.

The suggestive commercial course for high schools which begins the final report of the committee contains interesting variations from the traditional high-school course. The first impression made by this scheme upon the American schoolman is that it is too heavy, and that the scant time allowance given some subjects would necessarily result either in lack of thoroness or in disastrously overworking the pupil, to the injury of the pupil and to the prejudice of other studies. With regard to the number of periods a week of recitations, the committee's explanation that a portion of these periods requires no preparation applies more particularly to the first and second years. Moreover, it may be that we have gone too far in this country in reducing the number of recitation periods, and that we would better increase, rather than diminish, the number of recitations. If teachers could be induced to teach instead of examining daily upon work supposed to be prepared, the objection to numerous recitations would disappear. The French program adopted in 1902 shows an average of over twenty-three hours per week; for the ages of from fifteen to eighteen it gives an average of more than twenty-three periods, without drawing or any other unprepared subject. Undoubtedly the German program would also show an average of twenty-three or more recitations per week. We should not, then, without further consideration condemn the suggested course on the score of overweight.

The other objection mentioned—namely, that some subjects are granted in this scheme too meager a time allowance—is more serious. For instance, general history to 800 A. D. is given one half-year of four periods per week. What could be done in this time is too well known to teachers of history under the happily obsolescent one-year general history plan. The best thought is certainly away from the notion that if you swoop hard enough you can gather up all history from the creation to the Japanese war in one full swoop. Rapid skimming of history has been found to produce hardly a ripple on the surface of the pupils' minds. Neglecting entirely, except as they may concern the Greeks and Romans, Chaldea, Assyria, Media, Phœnicia, Syria, Asia Minor, the Hebrews, the Medo-Persian empire, and the African states and colonies, Greek and Roman history alone could not be adequately covered in this time. If Botsford's histories of Greece and Rome, or, in one volume, Wolfson, may be accepted as epitomes fully epitomized, nothing less being of any real value, a year of four periods per week should certainly be given to the subject of history to 800 A. D., or two periods for two years. A subject would better be omitted entirely and left to processes outside the formal curriculum, than be destroyed by the "smattering" treatment. If a commercial course is formed in the ordinary high school, commercial arithmetic might be added as an extra course in the second half of the first year, history to 800 A. D. be left as a course extending thru the second year, and English and continental history be placed in the third year, with equal time allowance. United States history would then be put forward into the fourth year. Modern apparatus of reference libraries, with reports in class of outside investigation, and as the means of making history an assimilated subject, cannot be used without adequate time. The committee simply yielded to the pressure of these subjects but did not want history squeezed out entirely.

The placing of plane geometry in the third year, second half, has this to be said for it, that the pupils will be then more mature. But this seems an entirely insufficient advantage to make up for small-time allowance and for the placing of plane geometry a half-year later than the beginning of physics. The admirable statement on pp. 51, 52 of the treatment of the subject which the committee recommends for the subject is hard to reconcile with the almost disappearing position of plane geometry on the program. It is the opinion of most teachers of physics that the subject as treated in high schools cannot profitably be begun until after the pupil has had a thoro course in plane geometry. Would it not be better, even in the separate commercial course, to place plane geometry in the second year for the whole year, and defer to the third year such portion of the suggested second-year work as might be necessary. It may be presumption to suggest this after the thoro consideration the question must have had, but the main effort on this paper is to induce the committee to take us into its confidence, give us all its reasons, and persuade us, if possible, to its position.

The critic has to criticise, and one called upon to discuss must discuss;

but criticism and discussion sink into insignificance when we consider the real contribution to American education that is contained in the report. Business colleges have done a great work, but the public feel increasingly every year that part of their work belongs to the high school. It seems to be the right of young men and young women to be equipped for immediate participation in the business life of the community. Hitherto a course in a business college has had to be superadded. This is certainly wrong. If the high-school graduate can enter college, law school, or medical school without further preparation, why should he not, without further preparation, be equipped to start upon his life-work in business? What has hitherto stood as the chief barrier against the effort of school boards and school superintendents to remedy this defect in our high schools, has been ignorance of what would constitute an efficient business course. It has been felt that such a course should in the high school be considerably more extensive and intensive than the rapid course of a business college, but no one has said with authority how this should be brought about. Now we have before us the content of a commercial course set forth by those who know the requirements both of the business world and of that greater world of culture from which the business man must not be excluded by a too narrow training. At last both those who advocate the separate commercial high school can state with confidence what such a school should teach, and those who wish to introduce a commercial course into the ordinary high school can intelligently, and from the practical standpoint of ways and means, devise a working plan. In fact, the inveterate program-maker cannot resist the temptation to apply this material. No excuse is therefore offered for the following tentative suggestion for the use of the committee's material in fashioning a commercial course in the ordinary high school, with, naturally, an addition to the teaching force. For the English the number of periods suggested by the Associated Academic Principals of New York is adopted.

FIRST YEAR

English	5	English	5
Modern language	4	Modern language	4
Algebra	4	Algebra	4
Commercial arithmetic	4	Commercial geography	4
Bookkeeping	3	Bookkeeping	3
Drawing	3	Penmanship	3
Penmanship	2		

SECOND YEAR

English	4	English	4
Modern language	4	Modern language	4
Ancient history	4	Ancient history	4
Study of commercial products or local history and industries	4	Plane geometry	4
Plane geometry	4	Bookkeeping and office practice	4
Bookkeeping	4	Typewriting	4

THIRD YEAR

English 3	English 3
English and continental history . . . 4	English and continental history . . . 4
Physics or chemistry 4	Physics or chemistry 4
First language continued, or second modern language begun 4	Modern language 4
Shorthand or typewriting 4	Political economy 4

FOURTH YEAR

English 3	English 3
History of commerce 4	Civil government 4
Commercial law 4	U. S. history 4
Twelve periods selected from:	Twelve periods selected from:
Language elected 4	Same elective continued 4
Shorthand and typewriting 4	Physics or chemistry 4
Physics or chemistry 4	Accounting, organization, and auditing 4
Banking and finance 4	Advanced commercial arithmetic and applied arithmetic 4
Solid geometry 4	Advertising, study of trade journals, and commercial English 4
Mechanical drawing 4	Office-work for stenographers 4

The modification contained in the outline just given presupposes a choice by the high-school pupil at the beginning of the first year. This paper is going to have the temerity to suggest also a more radical modification that leaves the first two years unchanged, except for an option added to the first year, and introduces some of the committee's material into the last two years. The idea is that some schools might accomplish this much but no more, and that the choice of courses would be more intelligently made after two years of general high-school work.

FIRST YEAR

Algebra	Algebra
English	English
Science	Science
Latin or modern language	Latin or modern language
Penmanship (elective)	Penmanship (elective)

SECOND YEAR

Plane geometry	Plane geometry
English	English
History	History
Latin or modern language	Latin or modern language

THIRD YEAR

(COMMERCIAL COURSE)

English 3	English 3
Physics or chemistry 4	Physics or chemistry 4
Modern language 4	Modern language 4
Bookkeeping 4	Bookkeeping and office practice . . . 4
Study of commercial products or local history and industries 4	Commercial geography 4
Commercial arithmetic 4	Political economy 4

FOURTH YEAR

English 3	English 3
History of Commerce 4	Civil government and U. S. history . . 4
Sixteen periods from:	Sixteen periods from:
Modern language or shorthand and typewriting 4	Same selection continued 4
Physics or chemistry 4	Physics or chemistry 4
Banking and finance 4	Accounting, organization, and auditing 4
Solid geometry 4	Advanced commercial arithmetic and applied arithmetic 4
Mechanical drawing 4	Advertising, study of trade journals, and commercial English 4
	Office work for stenographers 4

In this scheme penmanship as a required subject is omitted, but doubtless all having any thought of the commercial course would elect it, and even others might do the same to their profit. The work suggested for the two-year commercial course added to two years of the ordinary high-school course may seem severe. The remark in the committee's report regarding the relative number of hours a young man would work if he left school and began earning his livlihood is pertinent here. So long as the health were not injured nor the mind overwearied the course would not be objectionable on the score of severity. Practical testing could alone determine this, but it may be suggested that the practical value of the work would add zest. A boy could and would stand a good deal if he felt that a fair chance to begin at once a self-supporting career in business lay at the end of two years of effort.

It would not be right to pass over in silence the excellent monographs which define and defend the aim and content of the suggested course, altho time permits only a brief reference to two of them.

Mr. Crissey, in addition to an admirable summary of modern views of what the study of our native tongue should aim at, gives us the special needs of the business course. Not only business men, but all who write letters, are interested to know the correct punctuation of the address of a letter. Mr. Crissey's stand for pure English as distinct from a jargon that may possibly serve a particular purpose is indicated in his caution to teachers that the "business letters" of the dictation books should be used only when carefully edited. In Mr. Crissey's view the spoken language must be cultivated along with the written. He recommends that the school be organized as a club for debate.

The article on history and social science is particularly interesting from the standpoint of the ordinary high school. The contention that the basis for the study of the history of commerce should be an acquaintance with the facts of history in general, but that the history of commerce should not be taught merely in connection with the study of general history, is well supported: "It should occupy in its special schools the place occupied by the history of education in the schools of education, church history in the theological seminaries, the history of law in law schools, and military and naval history in the academies devoted to the education of soldiers and sailors." The quoted observation that history as written from the modern view-point passes from

"a melancholy record of human crimes and calamities" to the "animating register" of the industry and ingenuity of men, gives us another argument for history as a required subject in all courses of all kinds of secondary schools. The arguments for and against political economy as a high-school subject have been pretty well thrashed over in the last twelve years. Dr. Herrick is convinced, and convinces us, that courses which he places under the head of social science are indispensable in the scheme of a commercial course. In the ordinary high school the objection still remains, but it may well be that the inclusion of political economy among the requirements of the commercial course may lead ultimately to a removal of the difficulties which now exclude the subject in the general high school. If well-equipped teachers are available, and the time arrives when we shall agree as to topics and treatment, the high schools, at least in the cities, will welcome political economy among the electives. Dr. Herrick recognizes civil government, in close alliance with United States history, as a necessary constituent of the course of every pupil.

The report is as full of good pedagogics, catholic educational sympathies, and sound common-sense as an egg is of meat. This little paper has merely scratched its surface. It opens the right gate into an untilled field so fertile in possibilities of practical good that speculation as to the extent of its beneficent effect upon the American high-school system would seem like idle dreams. The committee has dared to be definite; may the educational authorities dare to carry into practical effect this broad scientific scheme for the nurture, not of dumb business tools, but of articulate, cultured, and withal shrewdly trained business men.

DISCUSSION

D. W. Springer, of Ann Arbor, Mich., chairman of the Committee of Nine.—Referring to the contention that arithmetic should appear in the first year, the speaker said that it was the opinion of the committee that pupils come from the grade school with a positive distaste for arithmetic, and it was thought best to give them a rest for a short time, substituting meanwhile a new subject (algebra) which would give mathematical training with the advantage of freshness. The second year the subject of arithmetic can be taken with new zest and greater power.

The speaker made frequent and extended reference to the monograph prepared by the Committee of Nine, issued by the University of the State of New York. This publication contains discussions on some of the points raised by the preceding speakers, particularly on the point of the time allowed by the proposed course. In this connection the speaker compared the time allowed in foreign schools with that of the proposed course, and showed that they were nearly the same.

He called attention to the fact, already referred to by preceding speakers, that the course had in it some compromises. Personally he regretted that there was not more drawing, but it was necessary to sacrifice personal opinion at times.

He said that it appeared surprising that all three of the speakers had objected to the provision for history, which had received more attention than any other single subject, and which follows very closely the suggestions made by the Committee of Seven on History in the Report of the Committee on College Entrance Requirements.

DEPARTMENT OF CHILD STUDY

SECRETARY'S MINUTES

FIRST SESSION.—THURSDAY, JUNE 30, 1904

The meeting of the Department of Child Study was called to order at Convention Hall in the Administration Building by the president, E. A. Kirkpatrick, at 2:30 P. M.

In the absence of Secretary Yoder, Miss Jessie Davis was appointed secretary.

The following communication from the British Child Study Association was read:

To the President of the Child Study Conference of the National Educational Association in Convention at St. Louis,

DEAR SIR:—The Council of the British Child Study Association sends heartiest greetings to friends and fellow-students in America now assembled in conference at St. Louis.

The members of our association regard with the keenest appreciation the constant and extraordinary efforts, the high scientific ability, and the successful enterprise employed by the leaders of the child-study movement in America, who are engaged in laying the foundations of true biological and evolutionary conceptions.

The work of such men as President G. Stanley Hall, Professor Earl Barnes, Professor W. S. Monroe, and others of your great leaders in developing a new philosophy of childhood is most keenly known and honored among us here in Great Britain, and forms an additional bond of union, sympathy, and indebtedness between us and our American kinsmen.

Accept our heartiest good wishes for complete success in every department of your conference held in the exhibition buildings. Such efforts are certain to conduce to a great and permanent increase in the interest and numbers of those consciously and systematically studying child nature in order to ascertain what are the latest possibilities and capacities of the growing child, and how he can be best provided with the means and environment wherewith and wherein to shape himself.

(Signed) J. C. HUDSON,
General Secretary.

The following program was then carried out, with the exceptions noted below:

Topic: "Individual and Practical Child Study."

1. "The Diagnosis of the Capabilities of Children," by D. P. MacMillan, director of child-study department of the Chicago public schools, Chicago, Ill.

2. "Some Laboratory Investigations of Subnormal Children," by Miss Mary R. Campbell, dean of the Chicago Hospital School for Nervous and Delicate Children, and educational adviser for the School of Special Education, Chicago, Ill.

3. "To What Extent May Atypical Children be Successfully Educated in our Public Schools?" by Maximilian P. E. Groszmann, director of the Groszmann School for Atypical and Nervous Children, Plainfield, N. J.

The Child Study Department then divided into two sections for round-table discussions.

I. ROUND TABLE ON CHILD STUDY IN THE KINDERGARTEN AND PRIMARY GRADES

(Chairman, Miss Myra M. Winchester, Fort Worth Kindergarten College, Fort Worth, Tex.)

Topic: "Comparison of Methods and Results in Child Study."

1. "Handwork as an Indication of the Mental Condition of Children," by Elizabeth Harrison, Chicago Kindergarten College, Chicago, Ill.

2. "Method of Child Study in the Kindergarten," by Luella Palmer, New York city.

3. "Child Study in the Grades," by P. W. Horn, superintendent of schools, Houston, Tex.

II. ROUND TABLE ON CHILD STUDY IN GRAMMAR AND SECONDARY GRADES

Topic: "Waywardness in Children of Ten to Eighteen Years."

1. "Criminal Tendencies and the Juvenile Court," by Charles W. Waddle, fellow in Clark University, Worcester, Mass.

2. "Relation of the Home and Parents to the Wayward Child," by Oscar Chrisman, professor of paidology, Ohio University, Athens, O.

Under the order of business the following Committee on Nominations was appointed by President Kirkpatrick:

Dr. Oscar Chrisman, of Ohio. Dr. A. Caswell Ellis, of Texas.
Miss Elizabeth Harrison, of Illinois.

SECOND SESSION.—FRIDAY, JULY 1

The department was called to order at 2:30 P. M. The Committee on Nominations reported the following nominees for officers, who were elected:

For *President.*—E. G. Lancaster, Olivet, Mich.
For *Vice-President*—D. P. MacMillan, Chicago, Ill.
For *Secretary*—Miss Theodate Smith, Clark University, Worcester, Mass.

The following program was presented in full:

A paper by Will S. Monroe, State Normal School, Westfield, Mass., was distributed, describing the various types of child study, and indicating where exhibits of the same could be found.

General topic: "Methods in Scientific Child Study."

1. "Questionaire Methods of Child Study," by Will Grant Chambers, State Normal School, Moorhead, Minn.
2. "Laboratory Tests as a Means of Child Study," by Miss Mabel Clarke Williams, department of philosophy, Iowa State University.
3. "Contribution of Zoölogical Psychology to Child Study," by Linus W. Kline, State Normal School, Duluth, Minn.
4. "Unsolved Problems of Child Study and Modes of Attack," by G. Stanley Hall, president of Clark University, Worcester, Mass.
5. "Child Study in Normal Schools," by Miss Anna Buckbee, State Normal School, California, Pa.

The meeting then adjourned.

JESSIE DAVIS, *Acting Secretary.*

PAPERS AND DISCUSSIONS

THE DIAGNOSIS OF THE CAPABILITIES OF SCHOOL CHILDREN

D. P. MACMILLAN, DIRECTOR OF DEPARTMENT OF CHILD STUDY AND PEDAGOGIC INVESTIGATION, PUBLIC SCHOOLS, CHICAGO, ILL.

With the growth in complexity of social institutions, and the parallel divergencies in individual tastes, desires, skills, and knowledges, there comes the necessity, in the mind of everyone who deals with human affairs, to have a correct estimate of the normal mind. For the most of us this is limited by our past experiences, and is a scheme of extreme inexactness.

Altho it is highly important for the man who would uplift his fellow-men, or who would profit by their weaknesses, to have an exact estimate of human nature, yet such a one is by no means under the same stringent necessity as those whose concern it is to tell the path of direction and to estimate the acquired power of the growing minds of children.

As the need of such a criterion of capability does not become imperative before attempts are made to educate children, and, further, as the inexorable laws of society will sift the incompetent from the capable youth in the struggle

of life, the years intervening between these extremes indicate for us the period of life during which it is desirable to have more exact information of normal mental functioning. I therefore limit myself to the period of the school life of children.

Children classified on any basis whatsoever will fall into the two groups of normal and abnormal, and this latter class may be further subdivided *ad libitum*. It is axiomatic that psychic tests or measurements applicable to children who are subnormal will be more easily applied to the normal, and that tests to be applicable to all cases must deal with the common avenues of approach and the general mode of expression of all the types that deviate from the normal.

On account of the limitation of our study to the school life of children, we are introduced naturally to the consideration of the school as a *measurer* of mental capability.

In the first place, the particular function of the school as a medium where children develop under forced stimulation necessarily throws the emphasis upon development and makes it only indirectly a tester of mental capabilities. Secondly, as the ideal which underlies and dominates community life in the school is that of preparation for the future, either in the narrower or in the broader implication of that word, the school's value and its significance can be judged from the end consciously or unconsciously aimed at. That is, the school is a transitory stage leading to something beyond itself, and accordingly must be judged by its efficiency as a developer of power for more specialized school work, which is its least important mission, and for adult life, with its attendant problems and duties, which is its fullest and most significant calling. Moreover, the school, as a social institution, must direct the greater part of its energy toward securing such a mastery of the symbols of civilization as will make its growing members not only inheritors, but promoters of the skills, knowledges, and values of society. It is, however, exceedingly important to distinguish the value of symbols to the person who has had experience at first hand, from their place in the mental life of the person who has not been so fortunate. To the former, symbols are the signs placed by him at the nodal points in the stream of consciousness, and so serve as indicators of its focuses and fringes—its relatively stable processes and its transitions. In short, symbols are the tags of meaning or identification, the representatives of complete psychical experiences. On the other hand, for the reader or person communicated with orally, symbols must create or resuscitate the living thing called experience from the dead and nonsignificant things termed symbols; and this, without the complete psychical process having taken place, requires not only a greater intensity in mental effort, but a different quality of mental processes, and presupposes not infrequently a maturity which is undeveloped or positively lacking. Power in dealing with symbols, then, does not necessarily mean capability in dealing with actual life-situations.

Finally, the schools, like the mills of the gods, grind slowly, and their

impress is often as difficult to efface. In the interests of those who are in this stage of transition, it may be said that it is not a very high order of observation to determine the path of direction of a process only after its cycle is completed, when the opportunities to control that process have passed with itself. Because these things are so, one must not consider the school as a positive indicator of the qualities we desire to estimate. We need then a method which not only touches elements more fundamental than those to which the school makes appeal, but also indicates to us, while the mind is yet growing, the vitality or superficiality of that growth.

The prominence given in recent literature on this subject to the teacher's estimate as an evaluator of mental capabilities makes it advisable to call attention to it in this connection.

As the schools are supposed to make three natural divisions of the school population, into those above their grade for their years, those at the proper place for their age, and those below their grade for the time spent at school, so it is conceived that the teacher, as a judge of mental capability, classifies children as brilliant, mediocre, or stupid. That is, in a heterogeneous group of children, considered irrespective of age, size, sex, and of course school grading, the teacher as a tester of mental capabilities classifies this group under the three captions of bright, average, and dull. The good points of this device of listing mental capabilities are shared by the schools as a tester, in so far as the teacher's estimate is a factor in the promotion of children in the grades; while its sources of error, which are largely attributable to the personal equation of the tester, remain when it is considered by itself as an evaluator, uncontrolled and uncontrollable. At the best it may serve as a rough preliminary test for subsequent scientific procedure, but certainly cannot be taken as a positive indication of mental capabilities which may or may not correlate with physical or psycho-physical data.

Again, it has been proposed to establish standard unit questions in the various staple studies of our school curricula for the purposes of exact measurement. This likewise fails where the schools fail, and might more correctly be designated, if it were established, as a tester of what the children have learned, rather than of what they can learn and do; that is, tests of different school systems, rather than of the native capabilities of the children of any school whatsoever.

What, then, shall be the criteria for determining the constituents of mental power, or the modes of mental functioning, concerning which it is highly desirable to have scientific measurements, and how shall we proceed to secure these? As all genuine reforms in formal or school education are traceable to the attempts to institute similar situations and conditions as obtain in informal learning or learning in the free medium of society, so all *tests* of the mental capabilities of school children must take their cue from the sifting processes and forces that are at work in society, directing a pointed finger at those mental qualities that are active in the successful coping with actual emergencies.

Now, the most general of these situations are those in which the wants of the body are appeased, and accordingly the general test of normality in human beings in this free medium is secured by systematically observing the manner in which the needs of the body are satisfied, that is, in giving a careful account of the ways in which the organism adjusts itself to persons, objects, and events. Success in adjustment is then the test. This success must be interpreted, however, in the right way. First, it must not come by chance. This means that there must be voluntary origination and control, presupposing the functioning of the highest nerve-centers. Secondly, it must be the getting of those things that are really worth while for the organism, not the securing of everything sought; in a word, there must be selection. Finally, there must be a consciousness that the things aimed at have been secured; there must be a reflection of the attained results into the mental status and future action of the organism. This cycle then, or the factors involved in controlling environment (and this control interpreted as an active mental attitude of the individual in adjusting himself), is the criterion for measuring normal action.

These factors—of originality in action, of selection, and of reflection—may be best studied under the category of means and ends. We judge of a man's grade of mentality, first, by the kinds of problems which he sets for himself, and we estimate that complex and remote problems require a higher grade of mentality than simple and immediate ones. Again, we not only judge by the character of the problems, but also by the skill and dexterity exhibited in solving them, where the ideal is to secure the maximum result with the minimum expenditure. Both combined signify on the mental side good system in thought and executive control. From this three obvious propositions may be gathered: first, that the power to receive information is essentially different from the ability to use it; secondly, that the attiude of active inquiry is psychologically different from the attitude of mere absorption in tracing out the ideas communicated orally or visually; thirdly, the attitude of active inquiry is more nearly akin to that of applying information to actual conditions or situations than is that of reception or absorption, if indeed in many instances it is not practically identified with it.

Now, upon close examination, the person who is eminently capable of self-initiation and self-direction, gives evidence of those mental virtues by what may be termed the inquiring attitude of mind. The essential and primary factors of this inquiring mental attitude may be listed under the following captions: perceptual acuity, in the sense of motivated perception; anticipatory or expectant attention; affective and emotional responsiveness; constructive imagination; reliable memory; persistence; conceptual discernment of relevant and valuable facts; and balanced judgment. Now, these are the factors that ought to be estimated. They presuppose, it is true, ideal tests applicable to ideal conditions, and yet they furnish suggestions that are of immense value in relation to tests that are practicable.

Practical tests must proceed upon the assumption of a parallelism and

interrelation between mental and physical powers, and as the factor which is the most open to observation and to experiment (which is controlled observation) is the physical, it seems the part not only of wisdom, but also of expediency, to begin on that side. It is, however, very important to bear in mind in devising and executing tests the following considerations: first, the marked superiority and fruitfulness of tests made upon the active phases of child-life over the passive—tests of action and doing over tests of bodily structure and anatomy; secondly, that of these activities the expressive furnish a better index of capability than the receptive; thirdly, that the motived motor are truer indexes of mental power than the bodily reflexes and automatisms; fourthly, that, as the telescope and microscope were devised primarily to assist the human eye to see, so all instruments of precision used in securing more definite data of children's reactions must be employed in strict subservience to tests made by expert observation upon children in their most natural media and most familiar moods; fifthly, the necessity that an experimenter with children is always under of not only making the instruments of precision adjustable to their bodily condition, but also, on account of the low limits of attention and the extreme liability to fatigue, of seeing to it that the mental processes called into exercise in using these instruments are *adapted* to each child examined.

With this in mind, we turn our attention first to expressions of the body as a whole and its parts—expressions other than language. Of these there is offered a natural division into, first, expressions preceded by an idea in the actor's mind; and, secondly, those in which the expression is not preceded by an idea—the so-called involuntary movements. Tests devised to meet these two conditions should go hand in hand, approaching the subject-matter by the observational method, and by the method of precise measurements. Of the first class the most fruitful opportunities for observational study are furnished in those situations in which the child does something in obedience to, or in fulfillment of, some idea of his own; but as the investigator is often necessarily handicapped by lack of time in making observations of the free play of the child's activities when these are self-motived, he must supplement such observations as he can make during the experiments by chance situations. The second class offers to the experimenter varied and valuable opportunities for study. In these the idea is suggested, imposed, enjoined, or commanded by the experimenter.

The first in order are the anthropometric tests and measurments with a view to determining the status and defects of the most prominent characteristics of growth. Under this class of bodily measurements come height, height sitting, weight, size of head, of face and its parts, bodily proportion, and the like.

Closely connected with growth are marked those signs of the body that indicate the status and defects of bodily nutrition and bodily movement, some of the most valuable of which are lung capacity, strength of grip, strength of back, chest, and legs, the various tests of voluntary motor ability, reaction-

time tests, sorting tests, ergographic records, and psychergographic experiments, tests on the reflexes and automatisms of the body, of the iris, of the eyelid, finger twitches, facial jerks, bodily inco-ordinations, postures and attitudes.

Next in order of convenience in a general program come the sensory tests. Under this heading may be noted tests of visual acuity, marking the character of the defects, chiefly astigmatism, muscular inco-ordination, dischromatopsia, and the like; tests of aural acuity for noises, for tones, for rhythms; tests of olfactory and gustatory sensitivity; and under this division of the sensory may be included tests to ascertain the sensitivity of selected parts of the body to pressure and to pain.

After these tests of mere sensory acuity come those designed to estimate mental functioning in the *use* of the senses, the tests of perception, such as may be involved in the discrimination and identification of sizes by sight alone, by touch alone, by both combined; of weights by active muscular lift or heft; of color and brightness differences; of noise and tone differences; of arm-movement differences, and the like.

Under the rubric of memory the same scheme of division of tests may be followed as in the preceding; first, tests of the immediate-sense memories of the various sense activities; secondly, the associational and affective memory; and, lastly, the so-called logical memory. Under the heading of imagination, tests may be employed to measure the transformation which images have undergone in passing from the realm of perception to the domain of memory. These may be listed as, first, the similar in kind, and, secondly, the translated or symbolic. Of this latter, certain tests may be used to determine the preferred type of imagery in each instance.

To determine directly the functional power of attention, experiments should be carried on with the object of estimating the two primary attributes of every mental reaction, viz., the degree of alertness and the intensity of concentration.

Associational tests resolve themselves into the two natural divisions: first, those designed to test the power to make arbitrary or *forced* associations, both simple and complex; and, secondly, those associations that are *free*, determining the thing-relations of position in time and location in space; and to these may be added tests for the purpose of determining the acquired use of the categories, thing and its use, thing and attribute, act and its quality or mode, producer and thing produced, and last, both in the order of time and importance, thing or act and its symbol.

Altho all tests of mental functioning are to a degree tests of judgment, nevertheless more specific characterizations of this power can be secured by employing tests which have as their primary object the determination of the judging processes, as quick and accurate, deliberate and accurate, quick and inaccurate or forming hasty conclusions, deliberate and inaccurate in its various forms, ranging from marked inability to secure data, to pronounced indicision or inability to conclude.

With a more exact estimate of these various modes of mental functioning herein sketched, made upon a large number of children, it will be comparatively easy to determine the so-called average or norm with such qualifications as will indicate in each instance the degree of representivity of such indices.

In conclusion, it may be said that in arrranging school curricula the attempt is always made to adapt them to the average or normal and, be it added, the hypothetical child. On this account the graded school system must perforce place the children into classes roughly estimated, and this classification is based, in the main, on their power to master and use certain groups of symbols. When, however, the attention of educators is directed to the *individual* child, so that his failures or successes under these conditions can be better understood, it is absolutely imperative to have at command some scheme for critically diagnosing his mental and physical capabilities; and to this end I make this contribution.

SOME LABORATORY INVESTIGATIONS OF SUBNORMAL CHILDREN

MISS MARY R. CAMPBELL, DEAN OF THE CHICAGO HOSPITAL SCHOOL FOR NERVOUS AND DELICATE CHILDREN, AND EDUCATIONAL ADVISOR FOR THE CHICAGO SCHOOL OF SPECIAL EDUCATION, CHICAGO, ILL.

My purpose is to discuss very simply, yet from the scientific point of view, a few problems that have been worked out in the Chicago Hospital School—problems which for the most part were suggested by the peculiar infirmities and needs of the children, and in the solution of which some children were so greatly benefited as to justify placing on permanent record the data obtained. As full account of these investigations will soon be published, the techincal aspects of the research will not be presented here. The greatest emphasis, therefore, will be laid upon the results—that phase of the research that will be most helpful and suggestive to those working with nervous and subnormal children. I will not go into a detailed description of these investigations, but will give rather a general synopsis under the following headings:

I. The problem.
II. Methods of procedure in conducting the investigation.
III. Results obtained, with some inductive generalizations.
IV. Applications of these generalizations to the care of normal children; for, after all, the great value of the study of the pathological individual lies in the application of the principles educed to the life of the normal individual.
V. Suggested investigations possible with normal children.

While in the mere statement of problem, method, result and applications, and suggested investigations I am presenting to you only a cross-section, as it were, of these researches, I wish it clearly understood that in all of our investigations every child was taken in relation to all conditions of his

particular case. That is to say, if we were studying the development of the mathematical concept in the child, we made our records and observations on him not only during the period of presenting that particular subject-matter, but these records showed in addition observation as to how and to what extent the child could apply the method of measuring magnitude from one subject to another; for instance, from cooking to manual training, or from music to cooking, or from music to chemistry and physics. If the experiment was one on the restoration of the speech function, our observations were not confined to a child's work during the technical lesson, but covered all manifestations of the speech function and other factors that might modify the expressive side of his life. Nor did we, in our study of the correlation of the physical and mental states in children, confine our observations to one or two phases of coexistent phenomena. As it is, the whole action that asserts the child's interior—the whole child, therefore, not the child in part—was studied. The daily sequence of the child's physical and psychical life was recorded in detail. The problems could not be met by an exclusively analytical method—a method too often employed in the study of children. The analytical had to be supplemented by the experimental and observational. It was by combining these methods that the problem yielded its fruitful results.

Every child was constantly under skilled observation from the time of his awaking in the morning until his retiring at night. There were three trained nurses for the ten children under observation and fourteen teachers, including the special teachers, the tutors, and supplementary teachers.

The empirical data gathered by the nurses covered such points as the following, which I present in the same sequence as recorded in the nurses' day-book:

1. A report on how the child slept and rested during the night.
2. The time of his awaking in the morning.
3. The child's emotional tone on awaking.
4. The child's temperature, pulse, and respiration on awaking.

   (The object of taking this record before the child arose was to determine his normal pulse before physical exertion.)

5. The kind of bath given the child—whether salt, cold or tepid, or a shower bath.
6. The time of dressing and length of time consumed in dressing.
7. The child's attitude toward others.
8. The quantity of water taken during the morning.
9. The kind and quantity of food taken for breakfast.
10. The exact time of the performance of physical functions, with a record of the kind and quantity of eliminations.
11. The pulse record taken immediately *before* a period of special mental effort.
12. The pulse record taken immediately *after* a period of special mental effort.

    (This record was to show the effect of fatigue on the pulse as induced by particular work.)

13. The general social conduct of the child during his free play period.

    (The children were very carefully observed during their playtime, for the child is most truly himself when he plays.)

14. The pulse record at midday to show the effect on it of the morning's physical and mental fatigue.

15. The kind and quantity of food taken at luncheon.
16. The pulse record immediately after eating.
17. A report on the afternoon nap—duration, the effect on mental efforts for the afternoon.

(The records of a number of children showed that better work was done from four to six in the afternoon than at any other time during the day. It seemed as tho they were reinforced both physically and mentally.)

18. The pulse record of the child immediately after his afternoon nap.
19. The kind and quantity of food eaten at dinner.
20. The time during the day when the greatest hunger was manifested.

(Inasmuch as hunger is one of the strongest and most imperative of the child's feelings, it seemed that one of the most important points to record was when this feeling most strongly evidenced itself.)

21. The mental condition and social attitude of the child during the children's social hour.
22. The temperature, pulse, and respiration of the child at bedtime.
23. The kind of evening bath—whether hot or tepid.
24. The kind of massage—whether dry rub or oil massage.
25. The exact time of going to sleep.

(A very careful note on the last point, to show accurately the number of hours' sleep per day the child had.)

The data gathered by the teachers were both observational and experimental. They covered the following points:

1. A note was made as to the kind of day—whether sunny, cloudy, rainy, snowy, warm, hot, chilly, or cold; and the apparent effect on the child.
2. The physical and mental condition of the child on entrance into the class was carefully noted.
3. *The pulse at the beginning and at the end of mental activity was taken to show the effect of the particular lesson.

(From this group of special data we were enabled to arrange the child's program of work so that the lessons producing the greatest fatigue would not come too close together, and so that the hardest lessons would come at the time of the child's period of maximum energy.)

4. The child's emotional tone was very carefully noted, and its relation to the child's physical and mental attitude.
5. The child's dominant interest (which was sometimes taken as a central subject and about which was grouped his other work).
6. A report of the lesson—its aims, its methods, and its results.

Other observations of both teachers and nurses showed a record of—

a) Any unusual manifestations.
b) Anything that might deflect or modify a child's emotional tone—such as parents' visit, peculiar influence of teacher, etc.
c) Anything that might affect the unit of the child's life.
d) Anything normally naughty.
e) The effect of weather on the mental condition of a child for a given day or for a number of given days.

In addition, the weight and height of the children were taken every twenty-eight days. Blood counts with the anæmic children were made every seven days, and a monthly digest report of the condition of certain children was sent the consulting physicians.

*(To avoid distracting the child, the pulse was taken by tactile investigation rather than by the sphygmograph.)

The first study I shall present is *a preliminary study in the correlation of the physical and mental states of nervous children.*

I. *The problem.*—In the fall of 1901 I undertook, at the suggestion of some of our physicians, to make a study of the correlation of nutrition and feeding with the mental and, in particular, the emotional states of children; the working out of such a problem having been necessitated by the various nervous conditions of the children that had been brought to the Chicago Hospital School for treatment. Fully 75 per cent. of the children enrolled up to that time were sufferers from malnutrition and anæmia, prenatal or postnatal. In beginning the treatment that was to rectify the mental deviations of these children, the first step was to overcome the physical deterrent: temporary defective hearing, temporary defective sight, temporary speech defects, and other inco-ordinations, traceable in many cases to lowered vitality, which were directly due to malnutrition.

The primary object, therefore, of this study was to determine to what extent nutrition and feeding were *directly* affecting the mental, and in particular the emotional, states of these particular children; and the secondary object of the investigation was to throw light upon the following questions:

1. To what extent is it possible to establish conditions which will bring positive data showing a close connection between nutrition and the morbid emotional tones or abnormal states of consciousness as such in young children?

2. Is it possible by the effects of feeding, if such a relationship does exist, so to modify the diet as to control the emotional tone of the child?

3. Is there a demonstrable connection between the deviations and fluctuations of the psychical life, as manifested by the erratic conduct of the nervous child, and his digestion—any connection between the child's output of physical and mental energy and his defective physiological processes?

These are the questions that confront us.

To find an answer to the first—that is, the connection between nutrition and morbid emotional tones in children—meant the arrest, at least, of an aggravated condition that was fast hurrying these children, but temporarily subnormal, into chronic abnormals.

By the answer to the second—the control of the emotional tone by modifications of the diet—contingent upon the answer to the first, other subnormal children could be helped.

The answer to the third question—the demonstrable relation between the outwardly observable erratic conduct of the child and his physiological processes, if, indeed, there is a demonstrable relation between the two—means the generalization of such principles as may be extended to all classes of children, both normal and abno mal.

II. *The method.*—Preliminary to the formal investigation, the child was studied to establish, if possible, his individual norm. He was also studied to determine, if possible, his pathological norm. While from the child-study notes of the nurses and teachers we had already established, approximately, by a system of grade estimates, the child's norm, and while we were conversant

with his greatest and least deviations from this norm, and with the conditions producing them, it seemed expedient at this juncture to push still farther this informal study along one or two lines; to ascertain, for instance, (*a*) the bearing of the child's preferences for food on digestion; (*b*) the relation of the pulse deviation to varying physical, mental, and emotional states.

The coexistence of certain phenomena having led us to suppose that a connection between them might be established, therefore, before taking up the technical laboratory phase of the investigations, with its formal experiments and analyses, we decided to study still further some of these apparent relationships that had been manifested and observed.

The apparent relationships are:

a) between preferred foods and better digestion.
b) between pulse deviation and non-elimination.
c) between pulse deviation and subnormal and supranormal mental effort.
d) between sleep and digestion.

All these apparent relationships—tho seemingly trivial—appeared to have a very great significance as bearing on the health of the child. Therefore the children who were to be experimented upon were now studied very particularly as to their feeding, according to the following program:

1. Diet: (*a*) a systematic diet was carried, and (*b*) the children were permitted to eat sparingly or freely as they felt disposed.

Observations on the following points were noted:

1. Solid food: (*a*) the kind and approximate quantity of food eaten, (*b*) with apparent indifference, (*c*) with apparent relish; (*d*) that for which positive dislike was shown; (*e*) preferences in particular were noted.
2. Liquid foods: (*a*) the kind and approximate quantity of liquids taken, (*b*) with apparent indifference, (*c*) with apparent relish; (*d*) that for which positive dislike was shown; (*e*) preferences in particular were noted, and the results of this preference on the quantity of kidney elimination.
3. Excretions: the kind and exact quantity of kidney and intestinal eliminations, and the apparent effect of food preferences.
4. The digestibility of certain foods in individual cases.
5. The relation of non elimination to pulse deviation.
6. The relation of pulse deviation to emotional tone.
7. The emotional tone as affecting mental effort and physical activity.

The tentative results of this informal study, covering approximately a period of thirty days, showed the following observations:

1. The greatest hunger was shown at the end of the day.
2. Preferred foods were better digested.
3. Meats were better digested by some children.
4. Starchy foods were better digested by others.
5. None of the children were satisfied with the amount of sweet food given them.
6. The majority of the children were indifferent to a food rather than positively disliking it.
7. Heat units averaged 2,200 per day.
8. The majority of children were averaging three to four glasses of liquid food per day. (This included water taken.)

9. The majority of children showed the food to be in a semi-digested condition.
10. The majority of children showed that elimination was very irregular.
11. The majority of children showed kidney elimination to be much too infrequent and very small in quantity—500–900 c.c. per day, or approximately one-third of what it should be.
12. As to the digestibility of certain foods in individual cases, we observed that the elimination of the meat-eaters showed that the meat foods were tolerably well digested, whereas the starchy foods were in a semi-digested condition.
13. The eliminations of those who preferred the starchy foods showed that the meats were poorly digested.
14. We found the relation of non-elimination to pulse deviation did exist, and in some cases to a marked degree. In three cases in particular the variation was so great as to justify keeping a diagrammatic record.
15. The relation of pulse deviation to emotional tone was corroborated.
16. The emotional tone as affecting mental effort and physical activity was not only corroborated, but we also found in addition some other very interesting points substantiating the relationship.

In addition to these observations, we observed: (*a*) that the æsthetic appearance of the table affected the older children, but did not seem to affect the younger children; (*b*) the smell of food, particularly the smell of roast beef, affected the older children—in particular two of the boys whose preferred food was meat; (*c*) we found that music during the mealtime affected all of the children; (*d*) the immediate interaction of physical and mental states was apparently very marked, as was evidenced particularly by those children whose eliminations showed semi-digested food, and whose kidney eliminations were insufficient; (*e*) while the children were being trained to masticate properly, they were not permitted to converse during this process; silence during the mealtime had a very salutary result on digestion.

At the end of three months we began the chemical analyses of the foods and eliminations.

A dietary which averaged 2,200 calories was worked out. This was simply used as a basis, and was not followed arbitrarily.

The varying appetites of the children made it difficult to get them to take even approximately the same amount of food every day. However, the following represents the general diet:

	Solids	Cocoa	Water
Breakfast.....	200 g.	240 c.c.	240 c.c.
Lunch.....	140	500	240
Dinner.....	800	...	240
Total.....	1,140 g.	740 c.c.	720 c.c.
Water taken during day (off meals) averaging...			700
			1,420 c.c.

The above was the actual amount of food supposed to represent an ideal diet producing 2,200 units of heat, sufficient for a child or youth. The

varying capacities, too, made it impossible for us to follow this dietary closely with the younger children, so the children were studied and a record made to show the deviations of the individual child from these given quantities. Not until after we had established the quantities necessary to satisfy hunger were we ready to take the next step in the investigation.

The experimental data recorded consisted of the following:

A. Method of analyses.

1. To determine the balance of foods a chemical analysis of the foods was made before and after cooking.

   (This was to see the effect upon the food in the way of loss of weight or increase of weight caused by heat.)

2. Samples of the various foods were taken at once and dried at 101–103° to constant weight, and analyzed for nitrogen and fats. Each loaf of bread was analyzed separately for H_2O and N. Fat and carbohydrates of bread were calculated from the table on American food material issued by the United States Agricultural Department. Rice, oatmeal, wheat, macaroni, and gelatine were bought in bulk, and each lot was analyzed for nitrogen.
3. Meats—cooked; then the adjacent portion of the part served was analyzed.
4. Milk—analyzed each day for nitrogen and fat.

   (This was necessary because of the great variation each day in amount of fat in milk. Analyses for fat in milk were made with the Babcock machine, because this is much more rapid than the Saxhlott apparatus.)

   (The analyses of fats [meats] were made after the method of J. Nerking, with modifications. Nerking digests the meat with 2 per cent. hydrochloric acid in water, and then extracts the resultant liquid with water and chlorisiden. After extracting the meat was dressed and put into the Saxhlott apparatus and again extracted with ether.)

B. In order to determine the digestibility of certain foods for individuals, the following was done:

1. All foods were weighed carefully before serving.
2. All food left over was weighed, and substractions were made.
3. A chemical analysis was made of the corresponding portion of the food eaten by each individual child.
4. All excretions were chemically analyzed daily.

(In preparation for the chemical analyses, the children were given their last meal at noon of the day previous to the beginning of this work, and with the breakfast was given a charcoal mixture. The kidney and intestinal eliminations were carefully kept separate and collected daily. The twenty-four-hour amount of each was sharply marked off. The intestinal eliminations were put into a large dish and evaporated to dryness with dilute sulphuric acid. In special cases, where the little patients were constant sufferers from constipation and had to be relieved, a water or milk injection was sometimes used rectally, which, of course, modified somewhat the results of the analyses at first. Later, as these children improved on this special diet, these measures did not have to be resorted to.)

C. Tests.

1. The blood was examined every seven days. These blood examinations were very valuable. Two children in particular whose appearance did not at all indicate a condition of anæmia had their mental fluctuations explained by blood counts which showed in one case the presence of only 68 per cent. hæmoglobin, and in another 65 per cent. of hæmoglobin—a percentage so low as to excuse in any individual the worst possible kind of behavior.
2. The weight of the children was taken every seven days.
3. The height, standing and sitting, was taken every twenty-eight days.

In order not to influence those gathering the empirical data, the results of different analyses were not made known to them for some time. In nearly

every case, however, the experimental data and observational data were substantiated by the chemical analyses.

(During these experiments it was observed that the children were not satisfied with the amount of sweets served them. The chemical analyses of the excretions, curiously enough, showed an insufficient quantity of sugar was being given the children. Their systems demanded more carbohydrates. This was noticed particularly in three cases. Consequently we decided that we would satisfy the appetite and physiological need for sweets by a little experiment. After every meal, every child was given two loaves of the ordinary size cut sugar. In about ten days the children began to evidence a satisfaction of this appetite for sweets.)

During these experiments none of the children were permitted to eat fruits, sweets, or dainties of any kind, excepting that furnished at the table and included in the prescribed dietary.

The following figures show the comparisons of the urinary eliminations per day:

Special Children	At Beginning of Experiment (Abnormal) (Av. 500–900 c.c.)		At Close of Experiment (Still Subnormal) (Av. 900–1,500 c.c.)	Normal (Av. 1,600 c.c.)
	Quantity	Per Cent. Approximate	Quantity	Quantity
S. P.	600 c.c.	33.33	980–1,500 c.c.	1,500 c.c.
J. L.	900	50.00	1,500–1,700	1,700
H. S.	720	50.00	1,050–1,300	1,500
T. J.	850	50.00	1,420–1,500	1,600
J. S.	600	33.33	1,100–1,200	1,700
L. G.	600	40.00	1,320–1,400	1,500

From these figures it will be seen that at the close of the experiment the children had been brought up to very nearly the normal quantity of kidney eliminations.

The following tentative conclusions were formed after the investigation had been under way for some six months:

1. Nutrition and feeding have a direct bearing on both physical and mental states.
2. Preference in foods frequently results in the preferred food being better digested.
3. By regulating the diet as to quantity and quality to suit individual preferences and needs, better digestion is obtained.
4. A close relation exists between pulse deviation and nonelimination.
5. A close relation exists between pulse deviation and supranormal and subnormal mental effort.
6. There is a close relationship between baths and sleep.
7. Young nervous children require hot baths at least once a day to help reduce the nervous condition.
8. Emotional tone greatly affects mental effort and physical activity; substantiating this relationship, there were found some very interesting points.
9. The emotional tone is greatly affected by the amount of sleep per day.
10. Children from five to twelve years of age require from ten to fourteen and fifteen hours of sleep per day.
11. Better digestion, better sleep, producing a better general physical condition, was obtained when the heaviest meal of the day was given in the evening.
12. Children from five to twelve years of age require from six to twelve glasses of water per day—two quarts at the very least.
13. Nervous children require feeding five or six times a day.

14. Nervous children, because of their excessive activity, require more carbohydrates.
15. The so-called abnormal craving of children for candies and sweets is nature's demand for sugar.
16. Children under nine years of age should be given what would average six loaves of cut sugar per day.
17. Of the children experimented upon, the majority of cases showed that obstruction took place in the large intestine.
18. The cases of chronic malnutrition showed indigestion in the stomach and middle intestine.

In addition, the investigation brought to light a few points which were very interesting and possibly valuable in tracing the mental deviations back to physical causes. As no data were to be obtained elsewhere on the following points, and as we work with so few cases, we find it impossible to state conclusions on these points dogmatically.

19. Stomach indigestion produced acerbity of disposition—oversensitiveness, fretfulness, irritability.
20. Obstruction of the small intestine produced variability, erratic conduct, and similar manifestations.
21. Obstruction of the large intestine produced stupidity, languor, accompanied by heavy headaches, particularly over the eyes. Melancholia, moodiness, and moroseness were also an accompaniment.

It was the opinion of Dr. John Dewey, under whom I worked out a portion of this investigation, that these three points worked out on a larger number of individuals might throw light on the causes of some forms of insanity.

Also as a result of some of our investigation, the following questions have been raised, c lling for further investigations:

1. To what extent is the general nervous condition of children at the age of nine to eleven due to insufficient quantity of water, and of sugars, rather than to that particular period of growth as it is generally conceded?

2. Are not lack of sufficient sleep and unwise distribution and insufficient number of meals influential, though ignored, factors in causing the physical and nervous breakdown of children at that age?

The second report to be presented is on an investigation that has been conducted at the Chicago Hospital School on *the relation of imperfect speech to arrest in mental development.* This study consists of three parts:

1. The first deals with the restoration of the speech function in young children who thru illness have lost the power of speech.

2. The second report treats of the development of spontaneous speech in hearing mutes.

3. The third deals with the relation of speech defects to other orthopedic conditions.

In presenting the method which has been worked out in conducting these investigations, great emphasis is laid upon the value of music as an aid in this speech development, and also upon the necessity of giving much technique in developing speech for the sake of freeing the child from technique.

We have had several interesting cases where children of retarded speech and hearing mutes have developed speech. Two of the most interesting of

these cases are of young children who, thru injury at birth had orthopedic conditions coexistent with speech defect. Owing to instrumental birth the cortical layers and speech areas of the brains of these children had been injured, and while mentation was perfectly normal in every way, yet owing to the muscular inco-ordinations due to these injuries at birth, motor expression of all kinds—leg, arm, as well as the speech-organs—was defective, and it was not until after triple operations had been performed on them, thus relieving the spastic condition in the legs, that speech began to develop gradually and more ease of expression was obtained.

A point emphasized is this, that technique in speech produced better articulations, better enunciation; and, if children physically defective could be so much improved thru this technical speech work, and if this training for incisive speech assisted them to have clearer ideas, such training would be greatly beneficial to children who have no marked defect in speech.

Half an hour, at least, each day should be given to drill on the physiological alphabet.

Drill on the phonics should be given from the fourth to the ninth year.

Inasmuch as speech is the most important function in human life, next to the vital processes, it is as necessary for teachers to know the physiology of speech as it is for them to know words and their meaning.

In developing speech or in correcting speech defect, a series of progressive body movements were given in order to establish the larger co-ordinations. These movements began with the legs, the arms, and in sequence progressed to the finer adjustments—all accompanied by music.

The third study covers a résumé of investigations on *the musical appreciation of abnormal children*, conducted for a period of some nine years. As a result of this research, the point is maintained that the so-called "abnormal" love for music, which all abnormal individuals seem to have, should be used as the center of interest around which other subject-matter may be grouped.

We have several cases on record in which music has been the basis of developing the mathematical concept in these children. This dominant interest of such children is usually ignored, whereas it is of the greatest educational value.

Possibly one of the greatest errors in handling backward children is in trying to put them into the eye stage before they are thru the ear stage. A great many so-called idiotic and feeble-minded children will give keen attention, and will show great interest in *music*, whereas they give no heed to verbal sounds and speech; words to them have apparently no meaning; they carry no content. This would seem to indicate that, inasmuch as language and speech are essentially a socio-historical function, and inasmuch as language was developed by attention being directed to the external world, and as language was first the result of a mental complex, made up of the identification of certain sounds and certain objects present in space, if, then, we wish in order to develop in the child the attitude of interest toward *words* and their

meaning, we must first begin at his stage of development, at his stage of mental sequence—sounds.

At the Chicago Hospital School technical lessons in speech, for instance, were given a new interest, particularly to speechless children, by working music and speech together, and it was thus much easier to set up the ear and speech co-ordinations than by trying to get the child simply to repeat verbal sounds. The physiological alphabet, when supplemented by musical accompaniment, was much more easy to evoke from the child than when the teacher's voice alone was used. In combining the work in speech and music, before trying to develop the accessory muscles of the speech organs or of the hand, finger exercises on the piano were given, as well as dancing lessons, in order to assist the child in obtaining bodily adjustments and poise.

Dancing and rhythmic movements, accompanied by music, were given as a sedative to reduce the nervous conditions of the children. In many instances the normal pulse was re-established by these rhythmic exercises.

In applying some of these generalizations to the care of normal children, the suggestion is ventured that if normal children of from four to eight years of age were given more dancing, more music, and more ear-work, certain nervous conditions would not develop. Dancing and music have much greater educational value the first few years of the life of young children than is provided for in the general course of work ordinarily outlined in kindergarten.

It appears, therefore:

1. That music as a factor in the educational development of all young children, both normal and abnormal, should be given greater emphasis.

2. That technical drill on speech—the physiological alphabet should be given young children, in order to free them from technique.

3. That young children, both normal and abnormal, should be given more dancing. Dancing movements are a prerequisite in developing other motor co-ordination—speech in particular.

TO WHAT EXTENT MAY ATYPICAL CHILDREN BE SUCCESSFULLY EDUCATED IN OUR PUBLIC SCHOOLS?

MAXIMILIAN P. E. GROSZMANN, DIRECTOR OF THE GROSZMANN SCHOOL FOR NERVOUS AND ATYPICAL CHILDREN, PLAINFIELD, N. J.

It is gratifying to note that from year to year greater attention is being given by educational and medical experts to the training of what I have called the atypical child. A few years ago not only was the term, in its technical sense, entirely unknown, but the class of children designated by it was not considered in need of any specialized instruction and education. There were schools or feeble-minded, epilept c, and defective children of various kinds; and much scientific effort had been made in the direction of helping these unfortunate classes, largely along the lines pointed out originally by the

French psychologist Edouard Seguin, who had been the first to prove the educability of even idiot children. Then there had been established, for some time past, a few private institutions for the avowed purpose of educating the backward and nervous child. But nowhere had an attempt been made at a careful classification of these different types of children, and little or nothing had been done toward a scientific understanding of the conditions and needs of the cases of minor abnormality. It is only in very recent times that efforts are being made to formulate in scientific terms the problem of the "atypical child" as distinct from the feeble-minded and defective child, on the one hand, and from the normal, or typical, child, on the other. And now the term "atypical" has become used somewhat generally, altho with little discretion as to its specific meaning. Following the example of some European cities, there have even been established in some of our public schools special classes for backward children, or for other children of a kind that render their remaining in the ordinary school classes unprofitable. And we are now confronted with the question as to how far atypical children can be, and should be, educated in the public schools.

In order to arrive at a clear understanding of the subject, it is imperatively necessary to make a careful classification of those children who deviate in any way from the normal type of humanity, so as to be enabled to designate with some degree of certainty those who can and those who cannot be advantageously handled in public schools. The following is a tentative grouping, such as may serve as a basis for future and more exact classification.

We may distinguish the following four groups:

First, abnormal children; that is to say, (*a*) idiots, the feeble-minded, the insane, the criminals, the moral perverts; and (*b*) those who have been called defective children, namely, he blind, the deaf, the dumb, the epileptics.

A second group is formed by children of arrested development. These constitute the primitive layer of society—a layer presenting peculiar and harassing problems of its own. To this class belong, in the first place, the submerged classes—that is, the children of those who for ages have been practically excluded from the advance of civilization, the drudges of society, those who still manifest types of bygone times in their mental, moral, and even physical attitudes and characteristics. A second class is formed by pathological cases—being represented by children who started out right in infancy, but were permanently checked in their healthful development by some pathological cause so that they had to remain forever in a primitive condition of mind and body. Members of either of these classes may drift into genuine abnormality, that is to say, into mental and moral perversity.

In view of the fact that a large number of children belonging to either of these classes are actually found in public schools, not receiving the very specialized training of which they are so much in need, it should be emphatically stated that they have no place in the public schools and that they should be cared for in special institutions. The existing ones are not half sufficient

to accommodate all of them, and are already so overcrowded in most cases that scant justice can be done even to those who have already found entrance there. How disastrous it is if children of these two classes are allowed to shift for themselves is shown in the experience of penologists. Our penal institutions are filled in a large measure by mental and moral perverts. It is not many months since I had opportunity of studying at the state reformatory at Elmira, N. Y., a number of cases of inmates who were so plainly feeble-minded and epileptic that it is astonishing how they could ever have been considered ordinary criminals.

The third and fourth groups to be distinguished are constituted of those children who are really or seemingly atypical. Atypical children proper—that is to say, children who do not represent arrest of development in any way, but merely an impairment of physical and mental strength—are the very class that has been referred to in the beginning of this paper, and whose cases form a new problem, to be studied with the greatest care and discretion. On the one hand, these children are neurotics and neurasthenics, with their endless variety of mental, volitional, emotional, and physical difficulties; on the other, there is a large number of slight variations from the normal, from the established type of humanity. These variations, or deviations, interfere with the normal rate of growth and development, so that the children are either slightly backward, queer, or difficult to handle and teach; or, on the contrary, show exceptional powers and a too rapid rate of advancement, and are nervously overstrung, excitable, and precocious. All classes of atypical children present an unstable equilibrium in their general make-up, and while some may develop genius when they mature, the majority will tend toward shiftlessness and inefficiency, irrationality, irresponsibility, and eccentricity.

It has been my experience that none of these classes of atypical children proper can be profitably handled in the public schools, but that all require a very special training in special schools and institutions; for the main factor in redeeming these children—that is to say, in re-establishing a normal equilibrium in them, or at least in mitigating their condition—is a well-regulated environment, and moral, intellectual, and physical regimen. In other words, it is not so much the instructional factor as the educational element which is to be considered paramount in these cases, and it has been found that the home is rarely the best place for these children.

There is another class of children whom we may call pseudo-atypical; meaning by this that they are not in reality atypical, but only present the appearance of being exceptional or backward, and whose defects are of such a nature that they do not interfere in a great measure with their capacities. Most of these children—and their number is very great—can be successfully handled in special or ungraded classes in the public schools.

There are, in the first place, those who are mentally backward for reasons which do not imply an actual defect.

The first group of these is formed by those who are backward on account of illness that has kept them out of school and retarded their periods of development. Secondly, those who, owing to frequent removals from place to place, have been subjected to changes of schools, of teachers, of methods; or who have been variously graded and re-graded, and who were the victims of the great variety of courses of study of which the schools of this country can boast. Obviously their having been obliged to readjust themselves several times, outwardly and inwardly, interfered with the continuity of their progress, and they present sometimes the semblance of dullness and slowness.

A third class of mentally backward children contains those whose rate of development is slower than the average, and who yet often possess great mental power. If they are allowed some individual freedom, they will oftentimes give evidence of considerable capacity.

Then there is that large class of children with more or less chronic physical difficulties, either curable or incurable, such as have retarded them in their mental growth without materially impairing their mental faculties. Among these may be mentioned the cripples; those whose vision and hearing are very slightly impaired, or who have chronic catarrh, and the like. The fitting of glasses, proper seating in the schoolroom, an operation for adenoids, nasal obstructions, and the like, may go a great way to their relief. I will later speak of some exceptions in this class.

A second class of pseudo-atypical children is formed by those who are mentally forward—that is to say, whose progress is especially quick without giving evidence of actual precocity. It is well to understand that the quick child deserves special consideration and should not be subjected to the slower measure of the average child. True precocity, such as would make the child genuinely atypical, is really a nervous disease and must be treated with special care.

A third class of pseudo-atypical children is formed by those who are morally affected, at least seemingly so, simply because they lack the proper s imulus and a proper appreciation of their individual requirements. In the ordinary classes they are the unruly, troublesome, willful, lazy children, who can often be easily redeemed by proper instructional handling. They require individualized efforts on the part of wise teachers who will recognize the different temperaments in children, and who will understand that the artistic child cannot be handled in the same way as can the manual child, and that the dreamy or the morose child needs a different stimulus from the active and cheerful one, etc. To this class belong the spoiled children, whose home and school influences have developed moral and mental characteristics which do not represent the true character of the child. Wise teaching can here do wonders.

But even among pseudo-atypical children there are many that cannot be taught advantageously in public-school classes, at least not during certain periods of their development. The establishment of truant schools shows

that school authorities have already taken cognizance of this fact; for truancy is a moral symptom caused by influences and conditions which require patient study and fair treatment, and which have produced a diseased condition that needs more thoro measures than even an ungraded class in a public school will allow of.

It is in many cases an improper home environment which creates temporary atypical conditions whose cure can be effected only by more drastic measures. Such children may have to be removed from their home environment, altho it may sometimes be sufficient that they live in a home institution from where they may attend the public schools. But then, there are cases of malnutrition, of general anæmia, which make it necessary to subject the child to a rational, hygienic regimen which can restore its physical vigor as far as possible. Again, children suffering from certain curable difficulties, including even adenoids, nasal obstructions, should, at least during the time they are so affected, be removed from the public schools and be given the benefit of treatment in special institutions where the effects and after effects, mental, moral, and physical, can be treated. But of course these cases can be afterward restored to their home and the public school.

There are children afflicted with certain incurable difficulties, such as pronounced defective vision and hearing, shading down to complete blindness, deafness, and real abnormality—children who, altho not greatly impaired in their mental and moral condition by these defects, yet need much specialized care and instruction—whom it would be disadvantageous, from the standpoint of the child as well as of the school, to retain in public-school classes.

It will be seen from these statements that I do not favor the education of the truly atypical child, and even of certain classes of pseudo-atypical children, in ordinary public schools. They seem to me to demand a much more comprehensive treatment than can be given in an ordinary school class, even were it a special class. If it were feasible to establish a perfect harmony with the home environment of these children, and even a controlling influence over the home many could be granted a fair measure of success in public-school classes. But such harmony and control are practically impossible, and the child, pendulating from one set of environmental influences to the other, never gains an equilibrium of habits and attitude. Here lies the great difficulty. The atypical child is least understood and least skillfully handled in its own home.

But even pseudo-atypical children who can be profitably educated in public-school classes require certain conditions under which alone the work can be done with some degree of success. There must be, in the first place, very small and elastic groups where individual attention can be afforded. Large numbers in a class are entirely objectionable. And the grouping must be elastic; as I have said, there must be the opportunity of regrouping within the groups to meet promptly every individual requirement. Individual attention and group-teaching should alternate so as to give the child, on the

one hand, the benefit of individual instruction, and, on the other hand, the stimulus of competition in a group. The work with these children must be based upon scientific child study, and the teacher of an ungraded class should be in constant touch with the consulting psychologist and the school physician, so that the child and its conditions can be thoroly understood in its component elements and factors. There should be a co-operation established between the home and the school, so that there can be unity of educational method. Then, in the matter of scholastic aims, individual differences, aptitudes, and tastes, must be recognized. There must be elastic courses of study and a most thoro elimination of "lock-step" programs and methods. Each child must be taken on its own terms. And, finally, there must be teachers well trained for this important and responsible work. Unless these requirements are fulfilled, truly or seemingly atypical minds will suffer in an ordinary public school, as they have naturally less power of resistance to unfavorable conditions and influences than the normal and typical minds.

TYPICAL CHILD-STUDY METHODS AT THE ST. LOUIS EXHIBIT

WILL S. MONROE, DEPARTMENT OF PSYCHOLOGY AND PEDAGOGY, STATE NORMAL SCHOOL, WESTFIELD, MASS.

The child-study movement in the United States is less than twenty-five years old. It has passed thru various phases and has employed a diversity of methods. From the first the movement appealed to normal schools, colleges, and other institutions engaged in the training of teachers. These child-study advocates have aimed to place the prospective teachers *en rapport* with child-life, and at the same time to give their student-teachers some scientific knowledge of the natural history of the child and the factors conditioning its physical and psychical development.

Methods of child study have accordingly been developed to meet the needs of these various workers. President G. Stanley Hall, who initiated the child-study movement in America, has made extensive use of the questionnaire method; and many of the normal schools and some of the colleges and universities have followed to a considerable extent the same general plan. Advocates of the questionnaire method have rightly claimed that it gives widely prevalent conditions of the mental activities of children; that it indicates certain persistent laws which must serve as a background in educational practice; and that for the prospective teacher it must have, in consequence, greater value than any other method. On the other hand, it has been affirmed that the method must be applied by persons but slightly trained in psychology; and that the returns, even when secured by experts, are of an incidental and accidental character, and probably in few instances do they give typical and persistent

tendencies of children's ways of thinking and feeling and acting. Professor Earl Barnes, who has worked over many thousands of returns secured by the questionnaire method in England and America, maintains that whenever the test is simple and well executed the results are as steady and law-abiding as those obtained by the study of any other data dealing with the phenomena of human life.

A type of child study, which has to some extent employed the method of the laboratory, has been applied to certain specific problems touching the physical nature of children. The tests have been in the nature of measurements, and the investigations for the most part have been under the direction of trained psychologists. The laws conditioning growth; motor ability of children; eye, ear, and other sense defects; factors inducing fatigue—these are some of the problems more definitely studied by means of physical tests and measurements. Professor Edward L. Thorndike has lately urged that the same method must be applied to the measurement of the mental traits of children. He says:

> If we could make such adequate measurements exhaustively, we could describe a man's mind as so many units of that emotional tendency, so many of this sense power, and so on through a well-nigh interminable list of possible mental traits. We should then be able to state exactly the difference between any two human beings, between the conditions of any one before and after any course of study or other educational influence; we could compare the results of different systems of education, describe the changes due to maturity, or calculate the personal efficiency of different teachers.

For the present at least extensive measurements call for degrees of exact psychological scholarship not possessed by the rank and file of teachers. The "consulting psychologist" recommended by Professor Royce at the Washington meeting of the National Educational Association would in a measure meet this difficulty. Such laboratories for the experimental study of children are already in force at Chicago and Antwerp (Belgium).

The child of retarded mental development has appealed to students of childhood both in our own country and in Europe; and various methods have been devised for the study of defective children. "Abnormality," as pointed out by Professor Edwin A. Kirkpatrick in his recent *Fundamentals of Child Study*, "may be regarded as that form of individuality which is destructive;" and, as such, the prospective teacher must be introduced to certain phases of juvenile mental pathology. Children with minor psychical abnormalities—slight power of attention, weak memory, ill co-ordinated motor functioning, as well as sense defects—have been selected for special observation. Use has also been made of the institutions for the deaf, the blind, the feeble-minded, and the juvenile delinquent as schools of observation for child-study students.

Colleges and normal schools have made extensive use of reminiscences in child-study work. A well-known student of childhood says that, in their work with children, teachers probably draw more upon the memories of their own childhood for an interpretation of the acts of the children under their care, than upon the knowledge they may have acquired in the study of psychology

and education; and he urges the need of clarifying and sharpening the childhood concepts of prospective teachers.

Numerous methods of "general observation" have developed in connection with normal and training schools; and extensive literary use has been made of the numerous experimental studies of children published during the past twenty-five years. The value of this type of child study has been called into question, and it is doubtless open to the objection to be urged against the study of results in any department of human thought. There is now a large body of reasonably scientific data concerning children, and the careful study and reflection of such studies must have unquestioned value to prospective teachers in the formation of pedagogic judgments.

These and other typical child-study methods will be illustrated in the school exhibits at St. Louis. I am permitted to use the returns secured by Professor Edwin A. Kirkpatrick, the president of the Child-Study Department, in making a forecast of the character and range of such exhibits. To the question, "Do you engage in any investigations for the purpose of reaching general truths?" twelve out of sixteen collegiate institutions replied in the affirmative; and six of these institutions stated that exhibits illustrating the child-study investigations would be sent to St. Louis. The University of Texas will send outlines of the courses in child study, reports of students on the study of children, and methods of experimenting on fatigue. Exhibits will also be sent by the University of California, the University of Washington, Yale University, Upper Iowa University, and Teachers College of Columbia University.

Forty-four American normal schools sent replies concerning child study. Five reported that they engaged in investigations for the purpose of reaching general truths, and thirty replied that child study was used as a means of training teachers. Nine of these will send child-study exhibits to St. Louis. The San José (Cal.) Normal School will send pictures illustrating the work; the Indiana (Pa.), the Bloomsburg (Pa.), the New Orleans (La.), and the St. Cloud (Minn.) Normal Schools will send blanks used and students' notebooks; the Lowell (Mass.) Training School will send child-study outlines used; the Chicago Kindergarten College will illustrate studies made in the first, second, and third grades; the Cheney (Wash.) and the Duluth (Minn.) Normal Schools express the hope that they may be able to send exhibits; the Fitchburg (Mass.) Normal School will send a complete exhibit illustrating what is done in the way of observation, questioning, testing, and measuring children, together with theses, reports, etc., of the students of the school; and the Westfield (Mass.) Normal School will illustrate what it does in the study of individual children, the range of studies on defective children, and the result of studies and discussions (from students' notebooks) on the physical and mental development of school children. The Worcester (Mass.) Normal School shows blanks for report of observations by students.

Of twenty-one cities and towns replying to the circular letter of the presi-

dent of the Child-Study Department, nine replied that systematic studies of children were carried on by the teachers, and three that such work would be exhibited at St. Louis. Passaic and Bloomfield, N. J., and New Haven, Conn., will illustrate the lines of child study carried on by teachers in the public schools. The child-study department of the Chicago public schools has prepared a very valuable exhibit. Exhibits in child study will also be sent by two private schools—the Chicago Hospital School for Nervous and Delicate Children, and the Groszmann School in Plainfield, N. J.; and it seems altogether likely that other institutions, not included in the returns received sufficiently early for use in this paper, will make exhibits of work more or less closely connected with child study.

QUESTIONNAIRE METHODS OF CHILD STUDY

WILL GRANT CHAMBERS, DEPARTMENT OF PSYCHOLOGY STATE NORMAL SCHOOL, MOORHEAD, MINN.

Like a newcomer in a New England community, every new method of science must demonstrate its respectability before it can be received into the fellowship of the staid old brethren. In spite of repeated experiences, the conservative old world has not yet learned that no revolution of life or thought, no discovery or invention of permanent significance, has ever been accomplished by an old method. New fields require new approaches. Socrates, Columbus, Galileo, Copernicus, Bacon, Darwin, Luther—every pioneer in every line of human progress has lived in professional isolation, and has died under popular scorn, because his methods and his results did not bear the stamp of hoary respectability.

Little wonder, then, that the new science of child study, its methods, its results, its devotees, should be received on every hand with suspicion. Perhaps the least conventional of the methods of this new science is that of the questionnaire. From the beginning this method has been severely condemned and its conclusions rejected by psychologists of the old school. If anyone doubts the necessity of a defense of this method today, let him send a thousand questionnaires on any subject whatsoever to the scientists of the country, and when the returns are in—if he should be so fortunate as to get any returns—he will probably have to revise his ideas of professional courtesy. I have in my possession, from the returns of a questionnaire investigation undertaken last year, expressions ranging all the way from enthusiastic approval at the one extreme, to personal insult at the other. If anyone is ambitious to realize what it means to be a martyr to science, from an inside view, by all means let him undertake a questionnaire study.

In this brief defense of the method under consideration, I shall make no attempt to describe the different kinds of questionnaires, nor to explain their respective uses. These are matters of detail which can have no significance

in determining the soundness or unsoundness of the principles underlying their use. By the questionnaire method let us understand any use of written or printed questions or suggestions for the collection of data from those with whom the investigator does not come into personal contact.

There are two classes of objections commonly urged against the questionnaire method: (1) those which assail the quality of the data collected; and (2) those which attack the interpretations of the meaning of these data independently of their quality.

I. Criticisms of the quality of the material collected may be summarized as follows:

1. Compositions or answers to questions written by school children are worthless for scientific purposes because untrained or unscrupulous teachers, who are more anxious to make a good showing for their pupils than to serve the cause of truth, drop hints or make suggestions, or even, in some cases, coach the children in the proper answers to the questions in advance of the exercise. The answers do not, therefore, represent the children's own attitude so much as the teacher's.

That this objection is valid in some cases I have not the slightest doubt. But that such material forms any considerable proportion of that collected by competent investigators I seriously question. In all my own studies I have found it necessary to reject the papers of but a single school on such grounds. To one accustomed to examine and evaluate data of this kind, any irregularity on the part of a teacher is very apparent, showing itself in the sameness of the answers, or perhaps in the recurrence of a single phrase or word or illustration. To be sure, an untrained student might not detect the deception, but it is hardly fair to judge the value of any method by its results in the hands of incompetents. This first objection might more properly be considered an attack on the morality of our teachers than on the validity of a particular method of child study.

2. Papers of school children give no clue to their real thoughts and feelings because they are prepared in an atmosphere of repression. The stamp of officialdom, of artificiality, is upon them. Being constantly invoked to be careful of their writing, their spelling, their punctuation, and all the rest, these little ones hand us compositions which are formal, insipid, lifeless, which no more represent the reaction of the normal child in his natural environment than they do the philosophy of Plato.[1]

There are several obvious replies to this objection:

a) That the truth of the statement is doubted is shown in the fact that one of the severest critics of many of the generalizations of child study, one of the most conservative of genetic psychologists, has made use, in some of his statistical computations, of percentage derived from school examinations, produced under precisely the same conditions as the condemned papers.[2] If formalism invalidates in one case, it must in all.

[1] Earl Barnes, *Studies in Education*, Vol. II, pp. 117, 118.

[2] Edward L. Thorndike, *Educational Psychology*, chap. vii.

b) If school conditions are as bad as this objection indicates, all the energy now being expended to condemn a method of study which uses but an infinitesimal fraction of the unnatural product of school activity should be at once turned to use in revolutionizing these blighting conditions, in dethroning artificiality and officialdom.

c) If these conditions are inevitable, then, since the generalizations of child study find their most immediate applications in the schoolroom, it is imperative that some of these generalizations, at least, be drawn from the reactions of the child-mind when in the schoolroom, however unnatural that environment may be.

3. Even admitting that teachers are competent and honest, and that school conditions are not repressive, many of the children's papers will be worthless because they have been copied from other children's answers, and do not, therefore, represent the writer's own point of view.

Why not apply the same argument to our examination system? If such a condition exists, it is a reproach to the teacher rather than to the method under discussion, and is easily remedied.

4. Many children treat the exercise as a joke, and give us nonsensical answers.[1]

Few teachers will agree that children are disposed to look upon any school exercise as a joke. Is it not rather true that most school exercises are regarded too seriously? I have never found more than about three children in a thousand who gave any evidence of joking or of any intention to deceive. I believe that our school children, with rare exceptions, intend to be honest and give us the best they have on every occasion.

5. Suggestion is another source of error. Questions often suggest answers to children which represent nothing in their actual experience. Such answers are worthless.

Not always. But a small proportion of syllabus questions ask for facts. They generally aim at ideas or interpretations. In many cases what a child imagines is a truer index to his real nature than what he remembers. An imaginary experience described in accordance with the suggestion, "Describe an unjust punishment you have received, and tell why it was unjust," may show the child's idea of injustice better than a statement of fact. But such answers are rare. Imagination is oftener dwarfed than overstimulated in school. Most replies are painfully prosaic. I believe that the error in any study, due to this cause, may be safely ignored, without doing violence to fundamental generalizations.

6. Answers which children write, especially the younger ones, do not represent anything permanent or fundamental; they are determined by transitory interests and unusual or temporary occurrences in their social world. They would have answered you differently yesterday; they would give you a still different answer, perhaps, tomorrow.[2]

[1] Earl Barnes, *loc. cit.* [2] Earl Barnes, *loc. cit.*, p. 117.

Like most other criticisms, this one probably contains some truth. We expect children to change from day to day, and we expect them to reflect their environment in their answers. The same is true of adults. But it can be demonstrated that if a question has anything fundamental in it,the answer will bring out something of permanent significance. Details may vary from day to day, but the underlying generic principle will be found fairly constant. In a recent study of children's ideals, a careful enumeration of all the characters whose choice could in any probability have been determined by temporary conditions showed that the selection of 4.4 per cent. of the girls and 2.3 per cent. of the boys could be so construed. But the most surprising feature was that for each year between the ages of twelve and sixteen the percentage of such random choices was from two to five times as great as it was for any earlier age up to twelve, and for both sexes. Adolescents and not children are most susceptible to environmental conditions. While it is not safe to generalize on the basis of a single study, we may nevertheless be put on our guard thereby against dogmatic assertions condemning any methods which have not demonstrated their validity. We must admit that the child, to a large extent, echoes his social environment. But it is the social child whom we have to educate, and the very thing that we desire to know is how a child reacts in his natural environment. No one cares to know how a child would think and feel in isolation, because no child lives in isolation.

7. In the case of reminiscent answers given by adults, error is often introduced thru suggestion in the questions and thru inaccurate memories.

This, while often true, is certainly the exception. The more uncultured the individual, the more completely would we expect his answer to be determined by suggestion. The remedy is to address the questions to persons of recognized intelligence.

But even here memory may play one false.

As to details, this is probably true, but in typical general experiences it may certainly be questioned. I challenge any hearer to say that he does not remember whether or not, as a child, he was ever afraid in the dark, or ran away from home, or had a punishment that enraged him, or fell in love with a playmate. Details may be dim, but there is no doubt as to the presence or absence of the experience in one's career. Let your own introspection determine your attitude toward this criticism.

8. Finally, the child is such a complex creature, with his various elements of race, sex, heredity, religion, natural and social environment, that no one strand of his life can be unraveled without doing violence to this isolated element and to the whole.[1]

This is a source of difficulty in the study of any living creature, by any method. The criticism may therefore be dismissed without further discussion, on the ground that it is common to all methods of biological study.

Is it not fair, then, to dismiss all criticisms against the quality of the data

[1] Earl Barnes, *loc. cit.*, p. 118.

collected by the questionnaire method on the ground that the points criticised are either—

a) Characteristic of other methods of investigation as well as this; or

b) Insignificant in extent; or

c) Due to abuses of the method which are easily remedied when attention is called to them?

II. Criticisms frequently directed against the generalizations of questionnaire studies, independently of the quality of the data, are based on such arguments as the following:

1. Many of the investigators are untrained in scientific method, uncritical, overenthusiastic, and ambitious to discover something new. They are prone, therefore, to jump at conclusions that cannot be verified.

This is evidently true, but not more so of the user of this method than any other. Much that has been produced under the name of child study by all methods is of this kind, and must be frankly and openly repudiated.

2. Professor Thorndike offers the following opinion:

> The use of replies to questions, or of school compositions, involves the exercise of much personal opinion as to the meaning of the report. Different individuals differ somewhat even in the measurements of a line, will differ markedly in their estimate of the intelligence shown in any test. . . . . The statements finally used to inspire conclusions are thus a compound of the actual reports and the subjective bias of the compiler.[1]

Is there any method of child study of which this would not be true? Would not the direct observation of a child, for example, involve infinitely greater complexity? Does anyone ever reach any conclusion that is not a resultant of his "personal bias" acting on ambiguous data? Professor Baldwin maintains that it is desirable to approach a problem with a preconceived theory. He says:

> Only the psychologist can observe the child, and he must be so saturated with his information and his theories that the conduct of the child becomes instinct with meaning for his theories of mind and body.[2]

Professor Thorndike, on the other hand, insists that the data from the questionnaire should be worked over and collated by clerks who are ignorant of the investigator's theories, and that from these bare statistics the psychologist should draw his generalizations. While leading psychologists are so divided on this question, it seems the part of wisdom for us to suspend judgment also.

3. Statistics based on quantitative questionnaire studies give us only averages, and as there is no average child, perhaps the tendencies discovered will not exactly fit any one child in a thousand.[3]

No one makes such a claim. What such a study aims to accomplish is simply the determination of certain typical or standard curves of tendency, and the limits within which individuals may safely vary from these average

[1] *Educational Psychology*, p. 160. [2] *Mental Development, Methods and Processes*, p. 37.

[3] E. L. Thorndike, *Columbia University Contributions to Philosophy, Psychology and Education*, Vol. VIII, Nos. 3 and 4, p. 14; also Theodate L. Smith, "The Questionnaire Method in Psychology," *Pedagogical Seminary*, Vol. X, No. 3, p. 407.

courses. It is not expected that any individual will exactly conform to these lines in his development.

4. Lines of tendency derived from papers of school children in successive grades do not represent the normal development of even an average child, for the children of each grade have been selected from the grade below, and are therefore a select class. No account is given of those who drop out between grades, who should be included if the curves are to represent normal average development.[1]

This is certainly true. The only way to determine such a curve would be to start in with, say, a thousand children just entering school life, and follow each one personally, whether he remain in school or not, making the desired tests each year. But the curves for school children determined by the questionnaire method are typical for all children who remain to complete the school course, and for each child up to the time of his leaving school. For every child in a grade beyond the first has been selected successively from all the grades below. Therefore these curves fairly represent the development of children who remain in school; and as our generalizations have their commonest application in school work, the method may be said to accomplish its chief purpose. Furthermore, it is very probable that tendencies thus discovered are as representative of children in general as are those derived from the continuous observation of one child or a small group of selected children.

5. Many of the generalizations of the questionnaire method ignore the fallacy of arguing from a part of the group to the group as a whole. It is necessary to compute by mathematical formulæ the probability that the conclusion reached for the part answering the questions will be true of the part not heard from.[2]

This criticism is sound within limits: one should not generalize for the group as a whole unless his data are fairly representative of the entire group. But what constitutes a safe proportion? That, I believe, depends entirely upon the kind of material under consideration, and therefore varies with the particular problems studied. I do not believe it is desirable or necessary, in every case, under present conditions, to work out mathematically the degree of probability that a given conclusion is universally true. Agreements in the results of similar studies, conducted by different investigators in widely separate regions, constitute a sufficient probability for present purposes. No law of science has ever yet been derived from a study of *all* the individual cases; by the very nature of the case, we must reason from a part of a class to the class as a whole, if we would have any laws at all. But it is necessary to use caution lest the part of the class contributing to the study be too small a proportion to establish principles for the whole. Carelessness in this respect deserves the censure it receives.

[1] E. L. Thorndike, *Educational Psychology*, pp. 103, 104.

[2] *Ibid.*; see also criticisms of the measuring mania in Miss Smith's review of this book, *Pedagogical Seminary*, Vol. II, No. 1 (March, 1904), pp. 99–101.

III. Turning now from the negative aspect of our subject, from the answering of objections, let us consider some of the peculiar advantages of the questionnaire method. I shall mention but five:

1. Perhaps the most obvious advantage is the simplification of the problems which it investigates by the elimination from its data of the personalities of the contributors. One who studies children by direct observation has a very complex situation to analyze. In addition to the particular material which he desires to use, there are manifest in the child a thousand and one other elements of thought, feeling, and action which constitute his personality, and which combine to obscure the desired data and to render its disentanglement from the mass next to impossible. The situation becomes still further involved by personal interest in, or affection for, the child studied. In spite of all he can do, the observers' attention will be attracted to these extraneous activities, and his mental vision obscured for the thing he seeks. In the answers to the questionnaire, however, we have the very material desired, extracted from the complex by the contributor himself, and uncolored and unclouded by a present personality.

2. A second obvious advantage is the elimination of space and reduction of expense. By means of the syllabus, material for examination may be gathered from all parts of the world—material which would otherwise be wholly inaccessible, or accessible only with a great expenditure of time and money. By means of a questionnaire one may bring together the testimony of thousands from regions widely separated, where by other methods he could examine but scores and within a limited area. It must be admitted, to be sure, that one cannot be so certain of the absolute accuracy of data gathered in such quantities and from such diverse sources; but we must admit, on the other hand, that any shortcomings in this direction are more than compensated for by the wider field covered by the investigation. Besides, where returns from hundreds or thousands are involved, individual errors obliterate each other. For these reasons, the results are likely to be more generally applicable than those of a more careful study of a more limited area.

3. A third advantage is one which is characteristic of all statistical methods. It is the fact that children of all ages can be studied at the same time, and, within a few weeks at most, tendencies discovered which show the course of development in the feature studied from childhood to maturity; while it would require at least twenty years to trace out a similar course by direct observation of one child or a few selected children. The common objection that tendencies thus discovered are misleading because characteristic of only a selected class has been considered (under II, 4).

4. Of equal importance is the fourth characteristic; quite often in working up syllabus returns, side issues are developed, principles not thought of show themselves quite incidentally, and generalizations are thus reached which are sometimes of greater value than those which were the direct aim of the study. There can be no question as to the genuineness of the tendencies thus inci-

dentally discovered, for they are unconsciously injected into the answers while the mind of the writer is intent on some other idea. They represent the most fundamental reactions of the child. As representing such conclusions I may mention the various discoveries from studies of children's drawings; the expansion of the social consciousness as shown in remoter ideals chosen by older children; the types of geographical interests revealed in the things remembered from a journey described; the growth of the consciousness of cause and effect, as revealed in the reasons given for various statements; numerous sex and age differences, and the like. It is no exaggeration to say that some of the most important generalizations of child study have been discovered in this incidental way. Most of these things would escape one in the direct observation of the children, because his attention is on other things. But when they are embodied in permanent written statements which may be viewed in the aggregate and with deliberation, they reveal themselves with emphatic distinctness.

5. By no means the least of the merits of the questionnaire method is the excellent approach from a distant to a more intimate relationship with children which it furnishes to young teachers or to those preparing to teach. I have found the use of the syllabus in attacking problems of child-mind a most excellent discipline, as well as a source of inspiration, to those preparing to teach. I have for several years required my students, after having carefully studied the method and the conclusions of a number of the most important questionnaire studies, to work out one complete study from the formulation of the questions to the drawing of the generalizations; and, in spite of the drudgery involved, they have never failed to grow enthusiastic as the conclusions began to emerge from the tabulated data. Such studies have invariably resulted in a closer and more sympathetic observation of children thru direct contact. Attention has been called to the fact that the questionnaire method simplifies its problems by attacking them from a distance (III, 1). Like long-range guns, it picks off the enemy's leaders at a distance, and thereby insures an easy victory at close range. It is just this feature which makes the method a good introduction to the study of children. By it so many of the native reactions of the child can be studied at long range that the really complex personality is rendered comparatively simple, and offers much simpler problems than it otherwise would, when one comes into direct contact with him.

IV. It would be sheer folly to claim that the method under discussion is the only method, or the best method, for studying children. Like all instruments of science, it has its limitations as well as its excellencies. There are many types of problems to which it cannot be applied. All investigations of physical growth, reaction time, sense discrimination, relation of physical and mental development, correlation of mental traits, fatigue, abnormal conditions, heredity, general and special training, and numerous others, are proper fields for the use of direct observation, laboratory tests, and other methods. On

the other hand, numerous contributions have been made to the psychology of race and sex, thru the use of the questionnaire. There are limitations of other kinds also. It is evident that our method is not applicable to those too young or too illiterate to express themselves easily in writing. Hence all studies of children below the age of seven or eight must be conducted along other lines, except in the case of questions requiring very simple answers. Rare or exceptional experiences or conditions—those not easily verified by comparison—are best studied in other ways. All questions seeking only a statement of facts observed, or of personal opinion, may well be investigated thru a syllabus; but those asking for expert testimony, or involving careful introspection, or susceptible to distortion thru personal bias, must be confined to data gathered, by syllabus or otherwise, from those alone whose ability is beyond question.

But, in spite of criticisms or commendation, it remains true that we must judge any instrument or process by its results. Judged by its results, whether in the high character of many of its users, in the variety of its topics, in the range of its application, in the soundness of its chief generalizations and in the effects of their application to pedagogical practice, or in the inspiration which it has given to scores of earnest workers in the field of genetic psychology, the questionnaire method of child study stands second to none.

LABORATORY TESTS AS A MEANS OF CHILD STUDY

MISS MABEL CLARE WILLIAMS, INSTRUCTOR IN PSYCHOLOGY, STATE UNIVERSITY OF IOWA, IOWA CITY, IA.

Our knowledge of the mind of the child may be advanced by several standard methods. Among them are: the method of simple observation of the individual child, followed by Preyer, Miss Shinn, and others; the statistical method, including anthropometry and the use of syllabi; the method of reminiscence, where the adult reviews the experiences of his childhood; the study of childrens' productions as an expression of the mental processes underlying them; the method of unclassified observations followed by Russell; and the direct experimental method.

Of all of these methods, the last-named is perhaps of the greatest value, not only scientifically, but practically. It may be employed alone, or it may be supplemented by, or used in connection with, some of the other standard methods of child study, the advantages of such combination being reciprocal. It is the purpose of this paper to outline some of the characteristics and advantages of this experimental method, some of the fields of application open to it, and a brief consideration of some of the requirements which the use of this method places upon the laboratory equipment and the experimenter.

A psychological experiment resembles an experiment in any other branch

of science in that it is an observation made under standard or controllable conditions. It differs from experiments in other fields, however, in that, as a rule, the processes experimented upon are not measured directly. Mental processes are conditioned by brain-processes; and by varying the stimulus to neural action, the brain-process is varied in a definite manner. Thus, a psychological experiment is an investigation of the mind thru "stimulation of the nervous system" (Baldwin). While it is true that a mental process cannot be measured, yet psychological measurement can be employed. The objection to the use of psychological measurement because the processes under investigation are too complex, is usually made thru ignorance of the conditions present. The experimental method discovers these conditions and reduces the complex process into its constituent elements.

One advantage of the experimental method is that it secures reliability of results. A record is kept of all the conditions which might influence the result, and they are many; of the exact method of procedure; and of the results secured. In a carefully planned experiment, what can be known is known and provided for beforehand, and every source of error is eliminated in so far as that is possible.

A second advantage of the experimental method is that it may be repeated by any number of independent investigators. It is possible also to compare results of independent researches.

The experimental method permits of the changing of one condition at a time, in order that its effect and importance may be determined. In this manner relevant factors may be separated from irrelevant factors and the complexity of the problem reduced greatly.

The experimental method is of special value in testing the validity of theories; in fact, it is the only rigid method of proving or disproving an hypothesis. A disputed point in a discussion may be settled once for all by means of a crucial test.

New problems are being discovered constantly by means of the experimental method. In the evolution of an experimental research new factors continually present themselves, and what seemed at the beginning a single specific problem is shown to be a complex series of problems, all perhaps awaiting solution by the experimental method.

So much for the experimental method in general. What are the possibilities of this method when applied to the study of the mind of the child? There are many fields open to it. Among the most fertile of these are anthropometry, and developmental and educational psychology, in both their normal and abnormal aspects.

Anthropometrical measurements may be of three types—physical, psychophysical, and psychological. Experiments in any one of these directions lead to a more thoro understanding of the individual child.

The study of the physical condition of the child is necessary for a proper estimate of his mental condition. Normal and abnormal states of nutrition,

general nervous tone, balance, etc., should be observed; but more direct attention should be directed toward a determination of the condition of the organs of special sense. The child depends upon these for knowledge of his environment. Frequently defects are present which, if neglected, may mean permanent injury. The statements of parents, teacher, or even of the child himself, as to his physical well-being, do not have the significance of laboratory tests. The reliable means of determining the actual physical status of the child is the experimental method.

Or the tests may be psychophysical in character. In fact, by far the greater amount of psychological research is upon psychophysical problems. Under this head come tests of sensations of all kinds, voluntary motor ability, reaction times, perception of space. An example of a psychophysical test may be cited as a type of many others. The problem is to measure the child's power to discriminate the pitch of tones, this being one factor of his musical ability. The experiment is made with a series of specially tuned tuning-forks. These range from 1 to 30 v. d. above a given standard pitch of 435 v. d. With them the smallest pitch difference that the child can detect is determined. A pair of forks is selected, the standard always being one of the pair, and these are set in vibration and held to his ear at an interval of about three seconds. Each fork is sounded about three seconds. The child is required to judge whether or not the second fork is higher or lower in pitch than the first. The test begins by sounding the standard and 30, the standard and 23, the standard and 17, etc., until a mistake is made. At this point ten trials are made on the same pair of forks, and ten trials on either side, until a place is reached in which, say, 80 per cent. of the trials are correct. This is regarded as the threshold. The value of this test is evident. It affords a definite and reliable measure of the musical ability of the child. It enables the experimenter to advise his parents or teacher whether or not he will be able to profit by musical instruction. When the threshold is low, the study of music may be strongly urged. When the threshold is high, it is often unjust to require the study of music. The results of this test are not superficial findings; the experiment goes into details and has a distinct bearing upon the theory of hearing.

Finally, observations yielding valuable results may be made upon more strictly mental processes, such as discrimination and choice in complex reaction experiments, the affective processes, and other modes of mental activity.

The great emphasis which anthropometrical measurements are receiving at the present time has aided in establishing the fact of individual differences. Every person differs from every other one in both physical and mental traits. This fact is an illustration of the wide biological law of variation. Variability, the tendency to be unlike, is one of the fundamental properties of living matter. The study of individual variations in mental traits forms a department of anthropological research known as individual psychology, and the experi-

mental method is employed in determining the individual differences in mental traits. For instance, laboratory tests reveal the presence of individual types of action, imagery, feeling, etc. From a practical standpoint the individual psychology of the child is more important than that of the adult, for it is frequently necessary to modify his treatment or instruction with reference to his personal traits. It is possible to distinguish those children who vary within normal limits about a definite standard or mode from the more extreme cases of variability, and then, if necessary, to subject the latter to a special course of instruction. The consideration of these more or less abnormal cases is not only important in itself, but frequently the normal is best understood by comparing it with the abnormal.

Another problem in this study of individual mental traits is to discover their interrelations or correlations. That is, we have what is called correlational psychology. For instance, what relation does one mental trait bear to another mental trait, or what is the relation of a mental and a physical trait? Does training in manual dexterity facilitate the study of mathematics? Or does skill in reading Latin avail in meeting practical everyday problems? The presence of correlations is for the most part revealed by the application to the experimental data of mathematical formulæ borrowed from the field of applied mathematics in biology. So far as the work of discovering correlations of mental traits has progressed, the main trend of the results is rather negative than otherwise. Many mental processes which have hitherto been supposed to be functionally related may bear no functional relation to each other. For instance, practice in memorizing one set of facts may not make it any easier to memorize a different set of facts. We are still grossly ignorant of this whole subject of correlations and await with interest the results of experimental research along this line.

Another field, in addition to the general one of anthropometrical investigations, is the application of the experimental method to developmental problems. What characteristic resemblances and differences does experiment reveal in the several developmental periods or stages of growth—the periods of infancy, childhood, boyhood, puberty, adolescence, maturity, and senescence? This problem can be approached in a thousand different ways, and it is useless to specify experiments in detail. Nearly all the anthropological and standard psychological tests lend themselves for the study of developmental changes. This field has scarcely been touched upon as yet, and, as is the case in all new fields, the problems inherent in it are not fully recognized. The study of the development of mind as manifested in the child is obviously important as an end in itself, apart from any reference to problems in pedagogy and adult psychology, but such study serves the triple purpose of furthering our knowledge of the mind of the child, of the adult mind, and aids in solving educational problems. Each stage of development has its own physical and mental characteristics, its crises, its seasons of rapid and of slow growth, its instincts, its predominance now of one trait, now of another.

These may be passed thru in a relatively normal way, or there may be a departure from the normal course of events, as frequently occurs in the period of adolescence. Indeed, the problems presented by the normal adolescent for experimental investigation are abundant.

The third field—that of the application of the experimental method to pedagogy or educational psychology—has already been touched upon in a measure. Education profits by all the work done along anthropological and developmental lines; yet the field of experiment in education is still distinct from these. One of the most important functions of the psychological laboratory is to further the cause of education. Pedagogy to be valid must be based upon the fundamental laws of psychology. It is for the most part the province of experimental psychology to prove and establish these laws, and they must be recognized by pedagogy before successful progress is assured. The establishment of psycho-pedagogical laboratories in some institutions, and of child-study departments in others, is a great step in advance in education. Here such problems can be determined as the best time to introduce each topic for study, the fatiguing effect of a school period and its remedy, the significance of children's interests; in fact, many puzzling questions may be answered and referred to a scientific basis. Such a procedure requires time; for weighty questions are not settled in a day. But, to have a real beginning, it is necessary that pedagogy begin right, and this is a step in the right direction. Some good work has already been accomplished, but much experimental evidence is still needed before the school curricula are placed upon a sound psychological basis; and until such experimental evidence is obtained and its significance realized, not much improvement need be anticipated. At this time particular reference might be made to the study of mental economy, the end in view being to accomplish the greatest amount of work with the least energy and friction. Pedagogy can gain much, and itself secure greater economy and reliability, by the use of the experimental method in the study of this problem.

A class of children who have more right, perhaps, than any other to claim aid from the psychological laboratory, are the mentally backward or tardy children, and those who from developmental defects, or what not, are unable to profit by the regular instruction of the school. These children form a far larger class than is usually realized, and to them the psychological laboratory owes a debt. Each individual child should be studied by experimental methods, his actual needs should be thoroly determined, and suggestions should be given for his better instruction and welfare.

There remains to be considered finally the requirements that are imposed upon the laboratory and its director by the experimental method. In order that successful work may be accomplished in any of the fields mentioned above, certain conditions must be met. In the first place, a psychological laboratory is necessary, and this should preferably be part of the public-school system. A psychological laboratory is not a curiosity in itself; it is

simply a room, or series of rooms, fitted up with apparatus suitable for conducting investigations upon mental phenomena, a means of facilitating observation upon mental processes. For the most part the apparatus is such as may be found in a physical laboratory, but it is applied to strictly psychological purposes. For some experiments only very simple apparatus is necessary, but frequently an elaborate equipment is required, or at any rate is advantageous. However, needlessly complex apparatus should never be used. The laboratory is the place for establishing general psychological laws in a scientific manner. These laws may often be applied to the mind of the child without making any actual tests upon him. The better way, however, is to experiment directly upon the child, but this need not always be done in the laboratory. To do so is frequently impracticable, if not impossible. The tests may be made in the schoolroom, or even in the home. The conditions of the individual problem should determine where the experiment is conducted. But in every case the essential thing is to employ laboratory methods; otherwise the results are of minor value.

A question arises as to the amount of preparation necessary successfully to plan, conduct, and interpret the results of psychological experiments. It may be said that the preparation can scarcely be too elaborate. The planning and organizing of the experiments devolves primarily upon the director of the laboratory. He must have a thoro knowledge of the various branches of psychology, but should also be more or less familiar with the main problems and facts of related fields, such as physics, mathematics, physiology, medicine, education. This is truly a formidable equipment, but a necessary one. So extensive preparation as this is not required of the actual workers in the field—not required for the more routine work of collecting data. This may be done by the laboratory assistants or students. Their training should be more along the line of the tactful handling of children, the manipulation of apparatus, and the recording of results. A short course of instruction would prepare many teachers or school principals for this more mechanical work. In fact, a very vital and far-reaching function of a psychological laboratory is to train teachers, particularly principals of schools, in conducting tests upon children who may come under their charge. A course has been given several times at the Iowa laboratory with this end in view. The tests usually emphasized in the course were for the most part either physical or psychophysical. The principals or teachers were thoroly familiarized, by actual work in the public schools, with the meaning and purpose of the tests, and with the more technical phases of experimenting and recording the data in a scientific manner. It was then possible for these persons to introduce into their schools, often without much expense, tests which aided materially in the proper education and intelligent handling of the children.

Now, altho the experimental method does require well-equipped laboratories and adequately trained experimenters, the advantages of this method have been seen to be many. The fields open to it are extensive and fertile.

Only those have been mentioned which relate primarily to the study of children. There is no problem other than child study to which laboratory tests can be applied more profitably; for "of all created things the loveliest and most divine are children."

THE CONTRIBUTIONS OF ZOÖLOGICAL PSYCHOLOGY TO CHILD STUDY

LINUS W. KLINE, TEACHER OF PSYCHOLOGY AND PEDAGOGY, AND SUPERINTENDENT OF TRAINING SCHOOL, STATE NORMAL SCHOOL, DULUTH, MINN.

The history of any science reveals the rate and character of its progress. The progress made in child study and in its great benefactor, zoölogical psychology, is set forth by the history of science and thought of the past three centuries. The scientific mind, during the greater portion of the seventeenth and eighteenth centuries, was dominated by idealistic rationalism. That spirit said to science: Study nature, not as she grows and develops, but as she eternally is. Growth, development, and differentiation found no place in a system of philosophy like Descartes'. He was preoccupied with eternal substances, eternal verities and mechanisms. Accordingly he made short work of zoölogical psychology. Animals, he declared, are void of mental life, and their activities are to be explained by the laws of mechanics. Professor Royce points out that events had little concern to a doctrine like Spinoza's.

> Old-fashioned science used to go about classifying things. There were live things and dead things; of live things there were classes, orders, families, genera, species—all permanent facts of nature. As for man, he had one characteristic type of inner life, that was in all ages and stations essentially the same.

Children were literally little men and women. Human nature was alike in both the child and the adult. The child became an adult, not thru nourishment, not thru the marvelous processes of growth and development, but simply by adding to the already existing qualities. Growth and decay were simply processes of addition and subtraction. The world and man were studied and analyzed as things and not as processes.

To recite the history of the changes of thought from this absolutely rigid and unvitalizing conception of the realms of nature to that of the modern spirit, which interests itself in the flow, the change, the growth, the development of earth and man, would lead too far from the present problems. Attention is briefly called, however, to the fact that at about the beginning of the nineteenth century science forsook the unprofitable task of classifying and describing permanent entities, and instead undertook the stupendous problem of accounting for the endless variety of objects and occurrences in nature by the processes of growth and differentiation controlled by the law of natural selection. Science sought to explain phenomena in terms of their genesis

and causal relations. The historical and comparative methods of investigation were ushered in. One of the first gigantic results of these methods as applied to life was the discovery of the facts of organic evolution and the framing of a theory adequate to their interpretation. The theory and ever-growing store-house of facts assert the kinship and continuity of all forms of life; that the manifold living forms of the present are descendants of a common primitive life-substance. This conception of biological evolution carries with it as a corollary the doctrine of the evolution of mind; and around this corollary is being marshaled such a multitude of facts that it now easily ranks as an independent theory and confers additional strength on the doctrine of biological evolution. The reciprocal relations existing between these two forms of evolution impress upon us that the mental life of man and animals has a common root or origin, that there is kinship running thru all mental life, and that man is but the final link in a long chain binding the whole animal creation together.

Thus it comes about that zoölogical psychology and child study form two separate chapters in the great book of mental evolution. Their relations toward each other are reciprocal, with perhaps the balance of trade to the credit of zoölogical psychology. "The appearance of Darwin's name among those who have deemed the child worthy of study" suggests that the two subjects are closely connected.

A comparison of human infancy with that of lower forms of life sets forth certain important human characteristics hitherto unnoticed. The first is its helplessness. Sully points out that the most striking characteristic of the newborn offspring of man is its unpreparedness for life. The second is the prolongation of this helplessness. "Long before he reaches manhood most of the brute contemporaries and playmates of his infant years will have had their day, and declined into decrepitude or died of old age." The third is the relatively large plasticity, and consequent wide range of adaptiveness. And the fourth is the large stock of growth-energy both in body and mind. It is a remarkable fact that the significance of these striking characteristics was not appreciated before the last quarter of the nineteenth century, and it is still more remarkable that the key of interpretation was furnished by the observation and study of lower life, and particularly of the life of an infant simian monkey. The facts were mainly gathered by Alfred R. Wallace, and their true significance indicated by Professor John Fiske in 1874. Wallace noticed that the young monkey had a different kind of infancy, which was a great deal longer than that of the young of domestic animals. He was longer in beginning to walk than the young of mammals lower in the scale of intelligence. He went thru a period of creeping, of staring at his hands, of standing up and laying hold of objects for support, of pushing them around; and finally of walking alone. He was altogether much longer than his humbler kin in getting complete control of himself. These and other like facts came to the notice of Professor Fiske, who, with remarkable insight, set forth the

meaning of these distinguishing features—helplessness, plasticity, and growth-energy—and thereby planted the first bit of seed for a philosophy of education based on the doctrine of evolution. He says:

> For every action of life, every adjustment which a creature makes in life, whether a muscular adjustment or an intelligent adjustment, there has got to be some registration effected in the nervous system, some line of transit worn for nervous force to flow; there has got to be a connection between certain nerve-centers before the thing can be done—and of course it is obvious that if the creature has not many things to register in his nervous system, that animal becomes almost automatic in his whole life; and all the nervous connections that need to be made to enable him to carry on life get made during the fœtal period or during the egg period, and when he comes to be born he comes all ready to go to work. As one result of this he does not learn from individual experience, but one generation is like the preceding generation. But when you get the creature that has arrived at the point where his experience has become varied, he has got to do a good many things, and there is more or less individuality about them—the capacity for progress begins to come in, and you begin to get at one of the great points in which man is distinguished from the lower animals.

A wide range of delicate relations consequent upon greater needs implies plasticity and variations in adjustment, and herein lies one of the conditions for human progress. A long dependent infancy is necessary for man to come into full possession of his physical and spiritual dower. As Groos points out, we do not play because we are young, but we are kept young in order that we may play and thereby receive the portion of our inheritance that arises thru that channel. Zoölogical psychology, then, has given a point of view, and equipped the investigator with principles and theories with which to attack the problems of child growth and development.

I now turn to a consideration of the more special problems of child study that are beneficiaries of zoölogical psychology.

Instincts are a sphinx to the introspective psychologist. No problem of psychology has created such a Babel of tongues and been tr a ed with more meager results; surely he would be a bold man who should even now attempt to write the last word on the subject. But a beginning has been made. We are able to ask intelligent questions and to recognize the facts which answer them. Three leading questions have been asked about instincts: What is their origin, what is their nature, and what is their purpose?

Respecting their origin three answers have been given, two of which were formulated before the advent of comparative psychology. Of these two, the first rests wholly on theological and metaphysical conceptions, with which we are not here concerned. The second answer ascribes the origin of instincts to experience and reflection. It is claimed that the initial action is caused by reflexes, and that the instinct is built upon these by means of experience. This view was urged by Bain. It identifies instincts with intelligence, which is equivalent to denying the existence of instincts; and this was actually done later by Schneider and Buchner, and a few others, notably A. R. Wallace, for a time. The third answer is a child of evolutionary thought, it is the Darwinian solution. Instincts originate by means of the transmission of both

acquired and congenital characters. An instinct, like any other mental process, is regarded as the product of differentiation, growth, and development from an undifferentiated homogeneous psychosis. "Instincts comprise all those faculties of mind which are concerned with conscious and adaptive action antecedent to individual experience." This, in the main, is the conception of the zoölogical psychologist based on the observation of animal activities.

Concerning the nature of instincts our knowledge is more definite and less speculative. Here there are two general problems. The first deals with the relations of instincts to other mental processes, and even to consciousness itself; and the second, with the manner and the conditions under which they occur. The facts which have furnished the basis for the discussion of these two problems have been gathered largely from observations made on lower animals. In fact, the problems themselves were never clearly stated and outlined until systematic observation of animals was well under way.

The relation of instincts to other mental problems and the like has given rise to a number of questions, among which may be mentioned: (1) the relation of instinct to consciousness; (2) the relation of instinct to impulse; (3) the relation of instinct to intelligence and habit; (4) the relation of instinct to the emotions; (5) the conditions attending the expression of instinct. Space prevents a discussion of all these questions. A few are treated briefly, simply to show our indebtedness to zoölogical psychology.

The fifth question inquires into the conditions attending the expression of an instinct. This problem resolves itself into two questions. The first is: Will instinctive acts occur as soon as bodily structures attain functional maturity, and in the absence of appropriate stimuli? Will the bird perform scratching and wallowing movements, or attempt nest-building, or the pup attempt to hide and bury articles, or the child to play dolls, in the absence of appropriate external conditions? Is external stimulus essential to touch off the perfected neuromuscular mechanism for instinctive acts? Experiments and observations show that some instincts do assert themselves in the absence of appropriate stimuli, while others do not. I have observed young chicks scratch and wallow for the first time on a clean, smooth pane of glass. At the season of nidification caged birds attempt nest-building out of any sort of material that happens to be within their reach. Caged migratory birds grow more restless and beat their wings against their prison bars at the approach of the migrating season. Professor James records a pup trying to bury a glove on the bare carpet of his study. In the first case, that of the chick, the stimulus was wholly absent; in the other cases it would seem that the stimulus was only partially adequate; while in the anger and fear instincts it is evident that external stimulus must always be present. Along with these observations have gone others to the effect that the instinctive act fades out altogether if the appropriate stimulus is never present. For example, the play instinct of the child may be almost, if not entirely, suppressed if its playtime be filled with

work. The pedagogical implication of this phenomenon is considered important to the teacher.

The second part of the problem of instinctive expression involves the modification and suppression of instincts. The evidence showing the effect of the lack of stimulus upon the expression of instincts also shows that they may be modified or suppressed altogether. The question of modification is further answered by the facts which indicate the relation between instinct and intelligence. The observations and experiments made upon animals by Mills, Spalding, Morgan, and others furnish abundant evidence to the proposition that instincts are not only modifiable, but they are the foundations of our intellectual structure. The evidence goes to show that instincts are undifferentiated consciousness accompanying co-ordinated motor responses. By means of the co-ordinated motor responses the undifferentiated consciousness becomes differentiated into intelligence—the beginning of our intellectual life. Instinctive activities then afford to consciousness data upon which the psychical structure of intelligence may be reared; they keep the animal machinery going and active until sufficient sense-experience has been accumulated to control and guide the creature's actions. It is evident that we have here another agency for the suppression of instincts, and, furthermore, a clearer conception of the function of instincts.

The phenomena which I have termed the "mode of occurrence" of instincts were observed first in animals and then gradually supplemented by observation on the human child.

Three groups can be made out. First there are those that occur during the infancy of the organism, of which there are two classes—one that gradually fades out, giving way to habits and intelligence, and one which persists thruout life. Of the first class may be mentioned that of following any moving object, sucking, biting, chewing, and grinding the teeth, clasping an object which touches the fingers and toes, etc.; of the latter, the snapping and biting of newborn alligators, young snakes burring with their tails, chicks pecking, creening, and stretching. The second group are those which occur periodically during adult life and are intimately associated with the procreative functions, nest-building, and migration. The third are those which crop out at a certain age or period in the individual life, approach an intensity of expression, then enter a waning period, and finally fade away. Collecting, hoarding, and hiding articles regardless of their value, and playing with dolls, are examples of this group. The nature of the instincts of this third group suggest and fortify the principle of nascent periods in the human child.

The last quarter of the nineteenth century witnessed the psychology of the emotions placed on a scientific basis, the foundation of which was laid by Charles Darwin in his work on the *Expression of the Emotions in Man and Animals*, published in 1872: by Signor Mantegazza, in his work on the *Physiognomy and Expression of the Emotions*, published in 1885; and by Dr. Lange, in a small pamphlet published in 1885. These works present facts showing

that the cause of the emotions is physiological, and this by implication showed the utter futility of trying to account for them on the grounds of rational psychology. They also foreshadowed the benefit to be gained by the study of the emotional life of animals. On this point Darwin says:

> I have attended as closely as I could to the expression of the several passions in some of the common animals; and this I believe to be of paramount importance. In observing animals, we are not so likely to be biased by our imagination, and we may feel safe that their expressions are not conventional.

I find by actual count that he devoted one-third of the pages of his classical work on the emotions to a study of that phenomenon in animals. He says, in setting forth his three general principles of expression: "Facts observed both with man and the lower animals will here be made use of; but the latter facts are preferable, as less likely to deceive us." Ribot points out, in his recent work on the emotions, that the materials for the investigation of the primitive emotions can be sought in the psychology of animals and that of children, for here their expression is unconventionalized. Classifying the emotions has always proved as attractive as profitless, and prior to the advent of genetic psychology always led to an inextricable tangle. Just as the classification in old-fashioned zoölogy put the cetacea among the order of fishes, so the earlier writers on the emotions confounded the derived with the fundamental; for example, astonishment, respect, and contempt were classified with anger, love, and fear. Spencer was the first to point out the futility of such empirical and superficial classification, and called attention to the necessity of observing animals, primitive peoples, and children in preparing a fundamental scheme of the emotions. He says:

> Thus we may, in the first place, study the evolution of the emotions up through the various grades of the animal kingdom; observing which of them are earliest and exist with the lowest organization and intelligence; in what order the others accompany higher endowments; and how they are severally related to the conditions of life.

The first to act upon Spencer's suggestion was Mercier, in his work on *The Nervous System and the Mind*. He has been followed by Sutherland, Ribot, and others.

The study of animals has contributed to the problems of heredity a large share of the evidence underlying its laws, as witness the works of Darwin, Ribot, Mercier, Mills, Galton, and others. The comparative shortness of animal life, the fact that several generations of the same species may appear and pass away before the eye of the same observer, and the fact that the laws of heredity are expressed by generational life rather than by individual life, increase the value of the study of animals in this unsettled field of knowledge. To the problems of instinct and emotions zoölogical psychology has made its largest contribution, and it should be remembered that it is in these two fields of mental life that the principles of mental heredity come nearest to the surface.

Heredity suggests by contrast the important school problem of individuality. The study of animals is driving home the doctrine of all-pervasive individuality.

In a general way we know that the range of individual variation varies with the complexity of its organism. Special studies show that the members of the same litter vary in bodily and mental traits far more than formerly suspected. Even the same forms in unicellular life are stamped with a degree of individuality. When studying an animal, the comparative psychologist asks himself these three leading questions: What are its strongest instincts; what is the range of its customary activities; what is the comparative strength of the animal's individual traits? The answers to these questions have long since convinced scientists that there are chicks and chicks, dogs and dogs, apes and apes, even from the same parentage.

Not long since much of our teaching proceeded on the hypothesis that children were alike for the most part. An unlettered workman once said to Professor James: "There is very little difference between one man and another, when you get to the bottom of it. But what little there is is very important." These slight differences not only form the contents of individuality, but are oftentimes the buds of genius. The highest art of the teacher is to discover these buds and to nurture them.

To summarize briefly:

1. Zoölogical psychology has given the key to a full appreciation of the distinguishing traits of the human infant, and has thereby contributed to a philosophy of education based on the doctrine of evolution.

2. It has brought instincts from the realms of mysticism to the ground plan of empirical observation, and shows that intelligence and habit have their beginnings in instinctive activities; and it thereby declares the functions of instinct to be the furnishing of experience, and thereby laying the foundations of intelligence.

3. It broadens our generalizations concerning the origin and composition of the emotions, and urges the value of studying the genesis of emotions in young life.

4. The study of animals has increased the means for a more accurate determination of the relative values of heredity and environment on the human infant.

5. It exalts the individuality of childhood, and indicates that progress is possible only by nurturing this individuality.

UNSOLVED PROBLEMS OF CHILD STUDY AND THE METHOD OF THEIR ATTACK

G. STANLEY HALL, PRESIDENT OF CLARK UNIVERSITY, WORCESTER, MASS.

First of all I must congratulate this section on the progress within its field almost unprecedented in the history of science, and still more so in the history of education. The child is no longer a manikin or larval man, but an epitome

of vertebrate and human life past and present, from whom we teachers can easily learn indefinitely more than we can teach him. It would take long to enumerate the academic chairs, the journals, and the important books all new in this field, where so little was so lately definitely known.

Anthropometry has measured and weighed the growth of many parts and organs, and seems destined eventually to become a specialty by itself, so intricate have become the biometric and mathematical modes of treatment. We have also many studies upon the growth of strength, skill, rapidity of movement, both individual and collective. In the growth field, however, there are still some great gaps. We still know comparatively very little of the growth of the finer structure of the human brain from the time it attains its adult weight at six or eight years of age on thru puberty, maturity, and old age. Of the senile and the infant brain we know something, but barely half a dozen studies now exist of the finer changes of the cortex that are believed to be most closely connected with the rapid period of mental growth during adolescence. Material for comparison can rarely be gathered in sufficient quantity, and of course the most refined histological technique is necessary. Again, I know of but two studies of any significance upon the effects of exercise on growth in height, weight, or special girths. This is a far simpler matter, and could be undertaken in almost any university by methods that would isolate normal growth from the increase due to exercise. We also need data more recent than Vierodt's tables upon the rate of growth of different organs and parts. There is room here for indefinite and far more specialized study, altho just now work in this field languishes.

Adult diseases have long been known. Those of children have been more recently defined; but those of adolescence, which is liable to the ailments of both childhood and maturity, altho each with less intensity, have only lately begun to be studied with care and success. *Dementia praecox* is probably a generic term for many forms of both arrest and perversion. Troubles of the eye, ear, skin, speech, or nerves; chorea, curvatures, chlorosis, and nutritive troubles, and the very suggestive phases of fatigue, have already a rich literature. The school doctor, his training and his duties, a life-and-health book for each student, school hygiene which has extended its domain into almost every department of education, and to which a magnificent European congress was devoted last spring—all this shows that health studies are fast becoming a specialty by themselves.

Here too, however, there is much to be done. As some of the unsolved problems here I would mention special studies of the teeth at different ages, and better provision for their care. This could be done by simple and rather obvious methods. Another line of work much wanted is a study of the health of teachers and the effect of their imperfect health upon their pupils. Again, a simple and somewhat detailed questionnaire, honestly and widely answered, as to just how schoolrooms and buildings are kept clean, and the provision, if any is made, for emergencies, whether fire, fainting, fits,

accidents, etc. Again, someone should collect data upon children who ought not to go to school at all, or but for a few hours or a single season; or conditions where education should be sacrificed to health. Once more, it is often rightly urged that the training of teachers should include some knowledge of slight and common, and also of the earlier stages of graver, diseases, including nosebleed, adenoid growths, wrong breathing, eye and ear imperfections with a method of tests, rickets, chorea, nervousness, etc. That woman has special aptitudes in caring for the sick, which are now uncultivated, is coming to be generally recognized. The tragedy of confusing slight deafness with idiocy, and means for the detection of the often considerable percentage of subnormal, if not dullard, children in our schools, with special provision by which they shall receive such education as they can, and brighter children shall not be held back by them, should be made clear to the teacher. A more comprehensive book than we yet have on school hygiene, embracing all its departments, and also the introduction of special courses in this subject into all pedagogic departments, is an obvious need. The special pedagogy of the deaf, blind, and especially the children suffering from arrested development, needs further study. Here belong studies of reform typography, foods, school lunches, home dietaries, and fatigue in its myriad forms; the consensus of answers on "How do I keep well?" on signs of mental invalidism and old age in teachers, male and female. Health, let me repeat, means wholeness or holiness; and what shall it profit a child to gain the world of knowledge and lose his own health?

In the field of juvenile morals we have studies of a few of the minor faults of children, but need far more. Cruelty, lying, theft, truancy, profanity, gross disobedience, the tobacco habit, and, above all, sexual errors, are in great need of further investigation. At the age of sex *éclaircissement* vice often saps the life of youth, and both teachers and parents can only look on ignorant and helpless. No topic is more difficult, and perhaps more dangerous, owing to the pruriency of public opinion, but the grave need here must eventually bring a knowledge of facts that will suggest some subtle principles of treatment in place of the chaos of counsels which now prevails. We know too little of the embryology of crime, on which I have long felt that some psychologist ought to specialize, and live in reformatories.

In the realm of feelings we know a little of fear, anger, pity; less of love, still less of jealousy, grief (and crying), regret, shame, and many other sentiments. These are now coming to be recognized as deep and all-controlling. Closely connected with them is what some have prematurely called ethology, or the science of character, of which psychologists for two generations, down to and including Wundt, have given us schematizations and abstractions, but of which we really know very little indeed. The only promising method of approaching this subject appears to me to be an amplification of the faint beginnings made years ago by Bohannon—the study of peculiar children. We could certainly have special detailed studies each upon the nervous and

the phlegmatic, the precocious and the retarded, the sullen and the ever happy, the careless and the over-orderly, the deformed or ugly and the beautiful, the clumsy and the deft and agile, the selfish and the altruistic, the imaginative and the prosaic, the ill-tempered and the good-natured, the conceited and the humble, the spoiled and the neglected child; and also the eye-, ear-, and motor-minded types. We need to know more of the development of altruism; also of the growth and abortions of affection to parents, brothers and sisters, nurses, servants; and we need an international study of interests, and also of the moral sentiment.

Miscellaneous topics in which the questionnaire method may at least help, tho in very different degrees, are the following: the differences between the city and the country child, and the advantages and disadvantages of these environments; further studies in the rich field which Hancock has opened in the development of children's reason; how the children in large communities and in different classes actually spend the hours before school, after it, and their evenings; the good points in the ungraded system; the effects of the progressive feminization of high-school classes and of the work of teaching; the methods of lesson-setting and home study *versus* passive instruction; the development of the higher and secondary sex qualities in boys and girls; the commercial and also the trading spirit; moral education in ways that can be curricularized; a study of the effects of what children read upon their minds and conduct, and of imagination; further studies of the contents of children's minds in entering different schools; symbolism as understood by kindergartners, and the theory and practice of the kindergarten generally; reverie and day-dreaming; the hygienic, æsthetic, and moral effects of dress upon children of different ages; Sunday-school methods and religious training generally; the pedagogy of mission work; the educational lessons of biography, and the need of fuller records of the youth of great men. This list might be greatly extended, for even the surface mining in this field is only well begun.

As to methods, the detailed study of a single child has certain advantages all its own, especially as providing data for a future science of character. This method can never be very special, because a child is too large and complex an object, altho, especially for defectives and infants and peculiar children, this method will always be helpful. Special work by selecting a single trait and massing observations from many children is related to the method of studying one child somewhat as microscopic or comparative is to gross anatomy. Some form of morbid fear, a fit of anger, a type of automatism, etc., by this method of conflation stands out in high relief and reveals its relations. Again, few things in the whole repertory of educational methods give a more wholesome self-knowledge, or cultivate the powers of literary expression and develop originality, like a well-devised, personal questionnaire that calls for the description of internal states and experiences. For this work girls in the later "teens" and early twenties have often a veritable genius, and excel all others in these intimate and sometimes confessional statements.

I believe nothing can compare as a theme for composition-writing with a good curriculum of answering a well-devised questionnaire.

When the data are gathered, the psychologist who works them up finds himself at once in the closest contact with life at first hand, and his duty is not only to scrutinize them to bring out the distinctions of age, sex, environment, etc., but he must often ransack literature and biography to attain a broader view. Or, again, he must turn to more pronounced diseases or insanities to see how traits look when writ large. Perhaps he must compare the instincts of children with animals, or study heredity. Perhaps, most often for scientific study, he must ransack folk-lore and the life of primitive man in order to find possible correlations between the child and the earlier history of the race. This may be the most difficult, yet the most scientific and also the most important, practical problem in the whole field. Often petty and insignificant themes, like yawning, stretching, hiccoughing, certain automatisms, special fears of cats, etc., have almost no educational, but a very high scientific, significance, while of other themes the converse is true. A large number, perhaps most, of the themes proposed are ill chosen and fail. It is hard to evolve good themes. They spring up incidentally in class, in observing children, in reading, etc.

For one, I have felt that we should go very slow in applying the results of child study to school work. We have before us awful warnings in the way of premature applications of brilliant half-knowledge of children in Froebel and Herbart. The former loved and understood the child as no one before his day had ever done. Despite his abstract and now obsolete philosophy which made the child's a mystic, symbolic, Wordsworthian soul, he was a pioneer; but unfortunately his schematizations and applications were not only premature, but overdone, so that his followers show all the pathos of early promise blighted in the bud, as they flounder in a maze of methods and distinctions which do violence to the instincts that gave them birth in the founder's mind and the interest that sustains them in that of the modern kindergartners. It is thus a strange anomaly that the years from three to five are least known, because the kindergartner has actually been ordered to beware of the paidologist. The older cult of the morning star resists that of the rising sun. That the American kindergartner, once freed of the baleful authority that now dominates her, will make up arrears and tell us of this age, now unknown to science save in the terminology of a cruder age of philosophic thought, there can be no doubt.

The second enemy of child study, Herbartism, represents a pioneer observer of older children who sought to tabulate their interests and to schematize culture-values in a crude way, just as we now try to do by far more developed methods. But Herbart, too, unfortunately applied and formulated too soon, and the pedagog cannot resist subjection to anything formal and methodic. Hence, because Herbart went to seed too soon in applications, he has followers devoted to form and without sense of content, who ring the changes on the master's phrases and excellent, but few and crude, ideas.

The third and last enemy of child study, the epistemologist, who introspects and speculates thru his study window, and who will not even study his own college students, illustrates the very apotheosis of a formulism almost utterly contentless. He has given us a psychology without a soul, a philosophy without an external world; a system that ostentatiously expels the muse of common-sense and fears contact with life; that represents a pallid, refined, and in its way interesting type of mental invalidism for want of blood and iron.

With these warnings before us, it seems to me we do well to go slow in trying to develop two things which must come and which, when they do, will be both imposing and constraining. The first of these is a scheme of education essentially based upon child study. The longer we wait for this, the better it will be when it comes. If we had a complete philosophy and a finished pedagogy based upon what is today accomplished, while it would be indefinitely better than the system of Froebel and Herbart, it, too, would still be premature, and, while it would give a temporary stimulus, would be sure to be followed by the same arrest that we see in these systems. Again, the methods of genetic psychology are slowly unfolding a new logic all their own. The technique of procedure, the elimination of sources of error, the construction of curves and percentile grades, the correlation of child and race, the modes of making observations and protocols, the schemes of work in all the different fields—each of these has distinctive features of its own, and in all of these together there lies implicit an imposing genetic logic which must be correlated with that of the work in the other evolutionary fields. But the time for development of this logic has not yet come. Just as in the Homeric age jurisprudence, theology, economics, and literature, were all implicit in the daily life of every man, making it rich before they had developed into different departments, so all the philosophical and educational cultures are implicit in child study. Just as in the Renaissance man remembered again his golden age and a new light came into the world, so we live in an age of the renaissance of child-life, and all teachers who carefully answer a good questionnaire help on the dawning of a new day, whether or not they have ever heard of paidology or ephebics.

METHODS OF TEACHING CHILD STUDY IN NORMAL SCHOOLS

MISS ANNA BUCKBEE, DEPARTMENT OF PEDAGOGY, STATE NORMAL SCHOOL, CALIFORNIA, PA.

I have taken the liberty to include in my discussion rather more than the formal wording of the subject warrants, for I shall speak of the aims or purposes, and of the results, of child study in normal schools, as well as of the method of teaching it. I have made no attempt to summarize what is done

in schools other than the one in which I teach, because the limits of my paper would not permit my doing so.

First, then, as to how the work is carried on. Roughly speaking, it is done in three ways, two of which are largely concrete; that is, we teach child study by studying children.

We begin with the single question asked of a large number of children. You are all familiar with the plan, so no time need be used in describing it. This is the simplest method of child study, and therefore the best one to use in case of the immature students with whom we deal mostly in the normal schools of my state. Among the questions we have used are the following. In a study of geographic interests, with a view to finding the best method of approach to the study of geography, the question asked was: "If you might go anywhere in the world you wanted to, where would you go?" "Give reasons for your choice." The results of this question have been collated, and the conclusions drawn by at least three writers have been published. Another question which we have used extensively is: "Tell how you think this school could be changed so that all of the children would *like* to come every day." Another question which never fails to reveal something worth knowing of the child's inner life is: "What do you expect to be doing by the time you are twenty-five?" The students first collate the answers to these or similar questions, which have been asked of our model-school pupils. The interest aroused is such that we next obtain a good many sets of papers from other schools answering the same question. Pupil-teachers who have gone to the trouble of getting these answers and of working them up are fairly started on the way to an intelligent appreciation of the work of experts who study children in this manner. The students are encouraged to think of suitable questions to be used and to do independent work. This often gives rise to fruitful discussions.

Investigators from other schools sometimes send to us asking that we gather material for them upon questions which they have selected; and if we are able to do so, we feel that we are coming to be a little part of the world of professional students of education.

Occasionally, we work out one of the long and difficult syllabi sent out by Clark University. Sometimes several of us can work at the same one, while other studies are so arranged that all of the answers must be given by the same person. A young woman who has written to Dr. Hall about one of these studies, and received a personal answer, as is his invariable custom, feels that she has in a way been received into the fraternity of original investigators; and while her contribution has been exceedingly small, its recognition is encouraging, and contributes in no small degree to her growth. Moreover, it is likely to give her a permanent interest in child study.

The second way in which child study may be taught is by having each student fill out one of the little books which we have placed on exhibition. These were planned by Dr. T. B. Noss, of the State Normal School, Cali-

fornia, Pa. They provide for a simple but careful record of the activities and characteristics of one child.

Naturally the physical life is observed first, beginning with the general appearance. Then follow complexion, health, diseases which the child has had, and the effects remaining, if any. Other points in the list are: measurements, facts as to sight and hearing, hygienic habits, bad physical habits, sleep, eating, and breathing. The general movements are observed, and the skill and interest the child has in work and play.

Then follows an outline for the study of mental life. The child's power of attention, sense-perception, memory, imagination, and reasoning are studied. A more careful investigation of his interests is made than the outline calls for; and nowhere is the student's ingenuity taxed more than in the matter of discovering these interests. A considerable study of the simple emotions of fear and anger is undertaken, because these emotions play so important a part in the life of young children.

The child's ideas of right and wrong, the good or bad habits already formed, and how they were acquired, and his attitude toward parents, teachers, playmates, strangers, and animals, make up the next division.

Besides the points named above, much more is made of what and how much the child imitates others, than the outline in the book would indicate. The dramatic instincts and tendencies receive a good deal of attention, as well as the development of self-consciousness. Signs of oversensitiveness are looked for, since morbidly sensitive children need special treatment in school.

In describing the plan further, it should be said that each student selects a child from one of the primary grades in our model school, and tries to make a friend of him. He is very careful not to let the child know that any especial study is being made of him. The observations recorded in the books extend over a period of several months, during which the students report progress from time to time. So it comes about that nearly all of the important points in the outline are brought up for discussion in class in connection with a concrete illustration. This in itself is a great gain. For instance, probably all teachers of methods in normal schools caution the prospective teachers about eye-strain and overtimid children. When these suggestions are given in a merely didactic way, they are likely to be forgotten or ignored. But when a student actually makes the test of the eyes of a child in whom she is interested, both the manner and the importance of doing so make a lasting impression.

The third way of teaching child study is by reading of the work of others, as described in books, periodicals, and reports. This is very important, and should have much more time allowed for it than is at all practicable under our present organization. About all that can be done is to examine the extensive bibliography of the subject, to call attention to how widespread the movement is, and to notice the professional standing of the leaders. Each student is also required to read one book upon child study and report it to

the class, and to read selected chapters from certain other books. He must also examine and report upon various addresses and short articles from time to time. In short, the result of this work in reading is to impress the student with what is meant by child study, who is working at it, where and how, and what the workers have found out.

The first and most important result of all this work is that the pupil-teachers come to take much more live and personal interest in little children than they are likely to do without it. The professional studies pursued in the training schools, and even the work in pedagogy, necessarily deal largely with children as classes or grades, or in a more or less general way. But in this work the child is a living and very active entity, and stands out in strong contrast to theories, outlines, and notes upon teaching, which occupy so much of the student's time. I recall frequent remarks like these: "I should not have thought a boy of six would notice so much. I took him to my room today, and he just saw every little thing." Another: "I brought Maggie to the dining-room [in the school boarding-hall] today. She asked about everything. I did not think she would see so much." Still another student said: "Minnie is afraid of darkness and of being left alone. I had forgotten that I used to be afraid to be alone." One young lady who studied her own sister told me that she found out a great many queer things about her, and would be much more careful of her in the future. From scores of similar expressions I cannot but be convinced that the work is one of the best ways of helping a young teacher into the right sympathetic attitude toward the children.

In the second place, a teacher, and more especially a young teacher, often finds it difficult to make occasions for meeting the mothers of her pupils; this work gives just the needed opportunity for coming into friendly relations with the parents.

I have already pointed out that it adds to the professional spirit of a teacher to know that he is taking part in a great educational movement; and it is quite unnecessary to enlarge upon the need of all the encouragement and inspiration that come from working with others for the common good.

Finally, it is not to be expected that the conclusions reached by students at the age of those in our normal schools will have much value in themselves, any more than in other branches of study. But classes in botany, zoölogy, and the like do laboratory work for the effect upon themselves, not because they expect to discover new facts at present which will add to the sum total of the knowledge of their subject. So with the work in child study—it should be taught in all our normal schools, so that our young teachers will be intelligently interested in the discoveries or conclusions reached by more competent observers. On the other hand, let it be frankly admitted that a scientific study of children, which shall give results so reliable that we may accept them and abide by them, must be carried on by expert investigators, whose scholarship, training, high aims, and facilities for the work shall command our acceptance of the results of their investigations.

ROUND TABLE CONFERENCES

ROUND TABLE CONFERENCE ON CHILD STUDY IN KINDERGARTEN AND PRIMARY GRADES

CHAIRMAN—MISS MYRA H. WINCHESTER, PRINCIPAL FORT WORTH KINDERGARTEN COLLEGE, FORT WORTH, TEX.

TOPIC: COMPARISON OF METHODS AND RESULTS IN CHILD STUDY

INTRODUCTION BY THE CHAIRMAN

When one contemplates the forty-third annual meeting of this vast organization, and considers the many departments and subdepartments into which it divides itself, and then pauses to think of the moving force or cause of it all, one penetrates to the heart, the core, and finds it to be the child with its full range of possibilities.

It is from this center, like the center of a vast sphere, that there radiate living force and strength which hold together all the various interests of educators, and which operate as a sort of spiritual law of gravity, in matters educational. Here are we, gathered from all quarters of the country: Kindergartners, primary teachers, grammar-grade teachers, high-school teachers, all approaching thru different radii of special subjects, but all approaching the same center—the child.

In this Child Study Department much valuable work has been done, and we elementary teachers are now to have an opportunity of comparing some of the methods and results of this particular line of investigation, thereby gaining for ourselves fresh suggestions and inspiration to make our daily practical work with children of greater efficiency.

By the many methods which have been employed to obtain an expression of children's inner natures—the questionnaires with their revelations and testimonies, the records faithfully kept by parents and others, the observations, the measurements, the tests both physical and mental—we have profited exceedingly, and our gratitude is ever due to those who have patiently blazed the way and have improved conditions for normal as well as subnormal and abnormal children.

And now there presents itself to the child-student a less explored region of investigation, which is particularly inviting to us who are elementary teachers. During recent years, the immense scope and importance of industrial training as a factor in education are being recognized as never before. The children of this and succeeding generations are the beneficiaries of the widespread and increasing adoption of manual work into the school systems of our land, and it is this labor of the hands that beckons us to make further research, that we may gain greater insight. Earl Barnes, David Starr Jordan, and Colin Scott have given us the beginnings of this line of investigation in the studies which they have made of children's drawings. To one who has seeing eyes and an understanding heart, to behold the work of a person's hands is to behold the inner nature of that person; for into a piece of work there go the heart, the brain, the vitality, and all the forces that make up a human being. What he is appears in what he does. And so in the discussions this afternoon, it is small wonder if the subject of determining the condition of children by means of their hand-work occupies an important place. Equally interesting is the study of children thru their spontaneous remarks—answers to questions—and their responsiveness in various forms of expression. This, then, indicates the outline of the conference this afternoon.

THE STUDY OF CHILDREN BY MEANS OF THEIR HAND-WORK

MISS ELIZABETH HARRISON, OF THE CHICAGO KINDERGARTEN COLLEGE, CHICAGO, ILL.

The highest argument for hand-work that has ever been given is probably to be found in the impassioned plea of Froebel in his almost inexhaustible book *The Education of Man.* Here he says: "religion without industry is liable to be lost in empty dreams; industry without religion degrades man into a machine; work and religion must be simultaneous, for God the Eternal has been creating from all eternity. Were this fully recognized, were all thoroly impressed with this truth, what a height could mankind soon attain!"

It is concerning this deep inner religious necessity of work that I would speak today, rather than of the more self-evident practical value of teaching children to use their hands.

The difference between industrial training and self-expression by means of hand-work, which is so insisted upon by all advocates of the manual-training side of education, is no more distinct than the study of the intellectual concepts of the child revealed by his hand-work, is different from the evidence of temperamental traits as shown by the same hand-work.

We have for the past ten or fifteen years been collecting data concerning the contents of children's minds, all of which have been useful and suggestive, and have led to great changes in the subject-matters taught to children, as well as in the methods of teaching the same. But both the subject-matter taught and the methods of teaching deal with the outer world and its effect upon the inner world of the child. There lies, however, another vast field of investigation thru the hand-work of children, namely, the revelation which such hand-work gives to us of the temperamental differences of children. In other words, we are still studying the intellectual side of education and still neglecting the emotional side. The one is to the other as color is to form. There is no complete beauty in the outer world which has not both color and form: so, too, the understanding and training of the emotional nature are as much needed as is the development of the child's intellectual power. In fact, the emotions lie deeper than the activities of the intellect; they precede the latter, and they outlive them.

History teaches us that primitive races were stirred into action thru their emotions. Even today we know politically and socially what a tremenduous power lies in the hands of the demagogue as well as the social reformer who can reach the hearts of his hearers. Recognition of this fact is even more important in our dealing with children than with the child-race. The emotions are fleeting, and oftentimes intangible and difficult to be perceived; and the hand-work necessarily partakes of this, reveals those inherited emotions which we call temperamental charactersistics.

It is to this subtle, but fascinating, study that I would call your attention this afternoon, rather than to the revelation of the clearness or confusion of the child's mental concept of the subject which he is attempting to express thru materials.

Let us for a moment look back over the art expression of the child(which each piece of hand-work should be, if it is given aright), as an expression of the emotions which were dominant at the time of its execution, and also as a key to the understanding of his temperament. Anyone who is at all acquainted with architecture knows that the fixed, stolid, down-bearing pyramids, obelisks, and sitting collossi of Egypt tell of the melancholy temperament of the race ruled by the Pharaohs. It is equally true of the art of the graceful and joy-producing temples and statues of Greece which show to the world the charm of the Greek civilization. The proudly rounding dome and florid capitols and grand triumphant arches of the Romans bring to the thinking mind the proud imperious nature of those all-conquering masters of the world. The beautiful aspiring mystery of the Gothic cathedrals voices for us the yearning, brooding religious temperament of the Middle Ages. Let us now turn to individual feeling, perhaps this reading of the race is too vast to be compared to the reading of the child's heart. The traveler who has looked upon the

angels and Madonnas of Fra Angelica knows without reading history that the painter of such pictures was loving, gentle, and kind; and he who has been stirred by the mighty prophets and sibyls of Michael Angelo needs not to be told of his strong and powerful temperament; it has already been revealed by his unconscious stroke of line and use of color. So, too, the degeneracy and voluptuousness of the later Italian masters speak for themselves in their beautiful, but not ennobling, productions. One needs but to study the statuary of the Louvre, and then pass over to the modern French sculptors as shown in the Luxembourg, to feel the difference between the purity of the early sculptors as contrasted with these later men as they each model and chisel the nude human form. Or if we turn to music, we have but to study Beethoven's music to feel the passionate struggles and inherent purity of the great master, whereas Liszt, who was equal in technique to Beethoven, tells in his music of a heart that was different. Illustrations might be multiplied without end, but no one who really studies art would hesitate for a moment to say that its greatest results are the expression of the spiritual nature of the artist, rather than of some thought or idea outside of himself. It is his spirit speaking thru his art to our spirits.

The real value of such great expositions as the one by which we are now surrounded lies, not in their bringing together the products of the material progress of the world, but rather that each expresses in great and beautiful language the stage of spiritual consciousness of its makers and builders.

It would be a study of no small significance to show the progress made toward higher things, as revealed to us since the great centennial celebration of American independence in Philadelphia in 1876. It was the glad shout of a nation, young in its national life, but free enough not only to express itself, but to call all other nations to come and join in its song of freedom. Individualism was rampant; no two buildings attempted to regard each other as to harmony or proportion, or to respect the effect of one upon the other. It was like a great, clumsy schoolboy expressing himself for the first time before the public. It was an enormous effort of the nation awakening to the knowledge of its own distinct individuality; but, taken as a whole, flamboyant, self-assertive, and crude.

When we come to the study of the Chicago Exposition, which was supposed to commemorate the discovery by Columbus of the New World, we found that, instead of this, it was in reality an expression of the adjustment of this great new nation to the other world-powers; the quiet and dignified assumption, as it were, of its place upon the platform of the world's arena—serene, calmly poised, and fully conscious of its own excellence, without any extravagant assertion of the same; a great world-symphony, of the binding together in peace and harmony of the nations of the earth. This was the spiritual impulse which stirred the hearts of the American people and caused them to produce a vision of beauty and serenity never seen before.

So, too, here in St. Louis we see and feel the joy of a great nation rejoicing over the acquisition of a vast empire by peaceful means, and a glad expression of satisfaction over the wealth and progress which have been added to America by means of this acquisition. One can scarcely stand at the entrance of Festival Hall and look down over the marvelous panorama without feeling that all the buildings and statues, and even the hills and skies, are calling forth: "Rejoice ye, rejoice ye, and be exceeding glad."

If we can thus see the emotional nature of the great art-expression of the world, we must acknowledge that it is to be found also in the art-expression of the child, for the motive power which leads to expression thru hand-work, if it is true creative expression must always be the same.

Almost any kindergarten training teacher can tell whose hand-work she is examining, even if the name is not with the work. At least she can tell what to expect in other things from the student who has done this or that hand-work. I recall the examination of some clay-modeling which has been done under the direction of "each of you make some object based upon the cubical form." One piece of work represents a house with a triangular

roof. To the front of the house had been attached a porch with pillars carefully made, and the suggestion of vines climbing around the window of the house. The rear of the house, however, was carelessly made and disproportioned. The training teacher surprised the class by saying: "This girl is one who cares for what she thinks the public will see, but slights the private things of life. She is the kind who will dress up for company, and look slouchy when guests are not expected; will have her children well drilled for exhibition days, but will not be careful concerning their efforts with work which is not to be examined; who, if she ever becomes a housewife, will know how to make layer cake, but will not understand the simple but delicate matter of broiling a steak correctly." Then follows the exhibition of a number of pieces of hand-work done by the children, each one of which was examined and commented upon as its revelation of the internal condition of its little maker.

METHOD OF CHILD STUDY IN THE KINDERGARTEN

MISS LUELLA A. PALMER, TEACHER IN PUBLIC SCHOOL NO. 94, NEW YORK CITY

This paper will be limited to the consideration of one method of child study in the kindergarten; namely, the subject method. This term is used in preference to questionnaire method, when describing the means of collecting data from small children. Direct and indirect questions calling for written or verbal responses may be employed in making tests with children over seven years of age. In infancy expression is more thru action than words, and altho simple questions requiring simple answers may be used with some subjects, generally the studies must be made by observing the motor responses to everyday stimuli.

For the past two years in the public-school kindergartens of New York city we have taken up definite topics for child study. We limit ourselves to two studies a year, that the work may be thoro and yet not burdensome. It is entirely voluntary on the part of the teacher.

The subjects have been "Children's Ideals," "Humor," and "Impressions of a Picture." The first two were suggested by Professor Earl Barnes, and the last by Miss Mary A. Wells, president of the New York Public School Kindergarten Association.

For the study on ideals cards four inches square were distributed to the teachers, one for each child. They contained these words with blank space for answers: "Sex. Age. Nationality. Whom would you wish to be like? Why?" Over seven hundred and fifty cards were filled out and returned. They were worked over by Professor Earl Barnes, and also by myself, as chairman of the Child Study Committee. The results were published in an article by Mr. Barnes in the *Kindergarten Magazine* of October, 1903.

For investigating the children's attitude toward humor, a paper was given to each kindergarten on which were printed three questions:

1. Name three stories during the telling of which the children laugh heartily, mentioning, if possible, the particular phrase or point which is amusing, and whether it is accompanied by gesture or change of voice.
2. Observe during one day what is the incident or occasion which causes the most boisterous laughter. Describe it.
3. Ask five girls and five boys what is the funniest thing they ever saw or heard.

Thirty papers were received with answers to these questions, and as each contained several clues as to the sources of childish mirth, there was material for an attempt at classification. The results have been embodied in an article which is now awaiting publication.

The basis for the picture study was one of the Perry reproductions, "Two Mothers and Their Children," by Gardner. One picture was given to each teacher with the following directions:

Have a sheet of paper similar to this for answer of each child. Give (1) length of time in any kindergarten; (2) answer of child. Show the picture for one-half minute to a child who is out of the hearing of the

others. Take it away and ask simply: "What did you see?" When he pauses ask: "What else did you see?" Give no third opportunity. Do not let the picture be seen until just before the questions are asked.

This study was eagerly undertaken, and the answers of about one thousand children were written down. We hope soon to collate this material and draw conclusions from it.

What did we hope to accomplish by these studies? What did we accomplish? Let us answer the latter, the more practical, question first.

To each teacher who made the investigation in ideals came a deep realization of the importance of immediate environment to a little child. Ninety-two per cent. of those who gave definite answers to the question, "Whom would you wish to be like?" chose relations, teachers, and schoolmates. Home and school fill a five-year-old's universe; not the culture material used in the school, but the living persons there. In the elementary school only about 13 per cent. would have chosen the same class of ideals. This gives additional evidence to the fact, with which we are familiar, that the kindergarten deals with a different stage of development from that of the school.

Of the impressions left by large heroic ideals there was but a slight trace. Washington, Roosevelt, and the like were chosen by 1 per cent. of the children, and then because they rode a horse or could shoot lions. Historic personages are better adapted to the school age than the kindergarten, if they are to be valued at their true worth. They are culture material which kindergartners have borrowed—and dare I say belittled?—and should be returned to their proper place.

Life itself, the immediate environment, the known, is the only available means of educating little children. Whatever is done to make the school beautiful has a great influence. This knowledge gained new emphasis from our study and gave fresh courage to the kindergartners, especially in the poorer districts, where they strove with added earnestness to make up for the deficiencies of the home by the attractiveness of the school.

The reasons which were given for the choices of the ideals were mainly that they brought occasions for some desirable activity. It is not what others have or are that is alluring, but what they can do. Possessions and moral qualities are of little account. Stories containing a moral to be effective must keep the morals in the concrete—and active.

To sum up the results of this one study: there was gained an appreciation, first, of the influence of home and school upon a five-year-old child; second, of the futility of holding up for admiration characters far removed from the child's experience, or those which have only moral qualities to make them attractive; and, third, of the truth that activity is the law of childhood.

From the study on humor it was found that most of a little child's amusement was caused by some unusual happening; sometimes a mishap, as a man falling on ice; sometimes the gesture or change of voice in a story. The more adult form of humor, play on words, is mentioned in only 1 per cent. of the papers. This test proved that it was natural and normal for the child to laugh at the misfortunes of others. It is not a high type of fun, but is evidently the necessary stage which must be accepted, and efforts put forth to draw the child a little higher. It might be as possible to blunt a child's sensibility to humor by pointing out too soon or too keenly the suffering caused by discomfort, as to dwarf him by allowing him to enjoy it too long. Let me quote from the reports of two kindergartners. One writes:

> I am sorry to say that my childern laugh more at the misfortunes of others—a chair tipping over or something of that kind—than at anything else. I try to discourage it, but that makes no difference.

Another writes:

> When a chair tips over, the room is perfectly quiet for an instant, until the child who has fallen says "didn't hurt;" then there is a great shout of laughter.

The second teacher seems to have found a way to allow expression to the child's idea of the ludicrous, and yet to shadow forth the possibility of higher things.

Nearly one-half of the stories were amusing because of gesture or change of voice. This is harmless glee, and should be indulged. In too many schools a laugh is considered a sign of disorder. A kindergartner should consider it a part of her daily program.

Activity as childhood's law was emphasized in these papers, too. A number of incidents mentioned as causing most boisterous laughter were due to some lively action on the part of the children. Of course, delight in companionship augmented the pleasure.

From a hasty glance over the papers on picture study it would seem that a child saw very little in a picture until his observation had been trained; he points out familiar and animate objects first, and then interprets the rest by things in his own surroundings. Each object is isolated; it does not have any direct relation to other objects. The child does not see the picture-whole. A single object will be the basis for an imaginative tale in the child's mind, which does not of necessity include any of the other objects in the picture. It is a later development to read a story into a picture.

Above are the practical everyday problems which have been solved or increased by these studies. As regards the children, the tests have not harmed them, for they have been given in such a way that no self-consciousness has been aroused. As regards the teachers, we feel that these results have well paid us for our trouble. They have not only opened our eyes on particular subjects, and helped us to understand our children better, but they have made us more prone to question generalizations which have the sanction of time. In other words, these studies have given us the scientific attitude toward our work, a desire to find truth, and an open-mindedness to receive it.

The tests have not taken the place of the study of the individual child, but have merely supplemented it. Each individual must be known as himself, and also in his relation to other individuals and to the norm. The purpose of these studies was to aid in establishing a standard, that nonexistent phantom type-form by which to gauge the living personalities.

A mass of material which contained all the particulars about many children might include several facts bearing upon one subject, and it would be possible to average these for a standard; but when all impressions have been indiscriminately noted, the tendency is to record the more unusual and startling. The normal is often overlooked, unless the attention is drawn toward gaining truth in a certain direction. The result is that many generalizations which have been made are founded upon the vivid impressions left by unusual children. A corrective must be the establishment of a standard, the average child.

It is more reliable, and certainly easier, to gather a number of related points for a definite purpose than to take them from previously gathered data. There is a smaller quantity of material, but it is all available.

There are several reasons why the subject method has not been extensively used in gathering data from little children. One is that the individual study has been considered more applicable to their age. They are thought by some people to be too variable and undeveloped. Yet the few statistics which have been gathered determine that generally the tendencies shown are those which develop proportionately in later years. The study is most fascinating when it approaches the beginning of things.

The many difficulties in the way of obtaining reliable data from small children is another reason why they have been so little studied in a scientific way. These difficulties have been considered almost insurmountable.

A child's verbal expression of vague feelings is doubly difficult from lack of power to express and indefiniteness of feeling. Yet this very vagueness is part of the child's attitude which we are seeking to understand.

Then the child is shy about telling what he knows he does mean. That little wild heart needs to be treated so gently to be drawn up out of the dark. The person who makes a test needs to be sympathetic, and yet capable of so eliminating self and personal bias that not the slightest intonation or gesture will influence the susceptible ones.

All of these reasons for not getting the exact truth are slightly applicable where older persons are concerned. The one difficulty which belongs peculiarly to little children is that the record can never be at first hand; it must be set down by another. That other may sympathize with, but connot enter completely into, the state of mind of the child.

Stage of development, past influence, heredity, individual force, all have a bearing upon the attitude of the moment, and their proportion cannot be determined by an outsider. The investigator must be extremely careful if the record, when elaborate, does not receive unintentional emphasis or transposition from individual bias. A perfectly open attitude of mind must be maintained.

Last, but not least, extra work and the sacrifice of time are required on the part of any one making a study. That it pays a high rate of interest those of us who have tried it can affirm.

Seeking for truth is its own reward; it is fascinatingly elusive, just when we imagine it is in our grasp; we find it inviting us to take another step forward. Sometimes we discover that we have been following a will-o'-the-wisp; but since the world learns by the mistakes of its individuals, if we strive we can add thru truth or error something to the world's advance.

CHILD STUDY IN THE GRADES

P. W. HORN, SUPERINTENDENT OF PUBLIC SCHOOLS, HOUSTON, TEX.

[SUMMARY]

Some difficulties in child study lie in the fact that the child has little control over his physical nature. He can exercise more control over his mental nature, and still more over his moral.

In profiting by experiments made, it is necessary that inferences should not be drawn by the young teacher. Students may produce much that is valuable; yet only one skilled in the work should formulate it; otherwise we cast discredit upon the study.

Undue confidence in reaching conclusions is unfortunate. The chief duty of the teacher to the child, after he passes the kindergarten age, is not to dull his interests as he passes thru school. It is a mistake to suppose that all his knowledge comes from the teacher. We should find out what he is learning, what touches him at every point.

Reading for the first three years becomes a new study when we take this for granted and watch the child's growth, finding out what he is learning outside of, and inside, school.

We must distinguish between natural and hothouse growth. We do not get at the real child when we study him under forced conditions. The child should not receive undue stimulus.

No system is valuable which does not take into consideration the child as he has been, is, and will be; for he does not reveal his whole self in the present. Also we must study many children to reach general results. The study must also extend over many years.

ROUND TABLE CONFERENCE ON CHILD STUDY IN GRAMMAR AND SECONDARY GRADES

TOPIC: WAYWARDNESS IN CHILDREN OF FROM TEN TO EIGHTEEN YEARS

I. CRIMINAL TENDENCIES AND THE JUVENILE COURT

CHARLES W. WADDLE, FELLOW IN CLARK UNIVERSITY, WORCESTER, MASS.

Yesterday natural depravity was the popular belief. Retribution was the end of criminal law. Today conceptions of crime are changing. The teachable criminal is more important than his changeless crime. Love is the motive, and direction, prevention, and reformation, the purpose, of legislative and judicial action.

Delinquency and crime are not synonyms. The actions of the child are no longer judged by adult standards. The child is not like the adult, either physically, mentally, or morally. He lives in a different world. The child's world is that of the senses; the adult's is the world of thought. The actions of the one are governed largely by uncontrollable instincts and impulses; the other is *expected* to act as reason directs. For centuries our laws made no adequate distinction. Both lawmakers and law-executors had mistaken theories as to the real nature and origin of crime. Many theories have been advanced, such as heredity, atavism, poverty, ignorance, abnormality, alcoholism, and environment. None of these theories are broad enough, none reach back far enough, to include all cases. No satisfactory explanation of the fact of crime was ever given until the theory of recapitulation and arrested development gave a new basis for its conception. According to this theory, criminal acts are acts or modifications of acts which, in the history of the race, were necessary for the preservation of life. Ferrianni somewhere says that "from eight to fourteen years of age the child is almost always a thief." We may add that this period corresponds to the age of savagery when individual property was unknown. In the case of any other specific crime a similar analogy can be traced.

The court of every city testifies that youth is the seedtime of crime. Rarely, indeed, is the first criminal act committed after the age of twenty. The fact that during the period from ten to eighteen almost every child is guilty of antisocial acts of less or more seriousness is not necessarily any reflection on the child. An act that is crime for an adult may lack its essential feature as such if it be the act of a child. Social and moral standards are an evolution. The child must learn the world in which he is to live. Much that is termed juvenile crime is the result of excusable ignorance. The boy who put the iron bolt on the railroad track had no thought of wrecking the train, damaging property, and endangering life. He was not a bad boy. He simply did not understand the seriousness of his act. The little girl of eight who set fire to the house just "to see the fire burn and the engines run" was in no sense a "prodigy of crime," as the newspapers styled her. She was only a homeless orphan whom no one cared to provide with the childish pleasures her nature craved. Her misdemeanor was an innocent, tho injurious, effort to satisfy a normal desire.

The child is not a criminal. He has tendencies which are antagonistic to modern social standards. By misunderstanding and mistreating him we can make him a criminal. Tell a child he is a criminal, treat him as such, confine him with those hardened in crime, and his teachable mind begins to believe it. But given wholesome food, sanitary environments, sympathetic encouragement, and patient direction, few children will continue to transgress.

Punishment has been tried long enough to prove that as a remedy for crime it is entirely ineffectual. In spite of retributive justice, crime is on the increase. The one encouraging feature of the subject is that our courts, our schools, our homes, are beginning to understand the problem before them and to grapple with it. The sentiment—originating, I believe, with Mr. Bodine, of Chicago—that "it is wiser and less expensive to save children than to punish criminals," has won enthusiastic approval everywhere. Many of our states have passed laws which make provision for the wise and just treatment of the child. Others are hastening to follow their example. Attention is given to the physical, mental, and moral welfare of the child that was unthought of a generation ago. The boy in whom one touch of the surgeon's knife wrought a transformation of character that repeated whippings had failed to make; the habitual truant who became a faithful attendant at school when fitted with a pair of glasses; the unmanageable boy whose trouble was in his defective hearing and not in his bad heart—all testify that the part taken by the court medical examiner in the reformation of juvenile delinquents is invaluable. The probation system is the embodiment of corrective, preventive, and directive measures. Juvenile offenders yield most readily to its helpful influences. With intelligent and devoted probation officers to carry out the will of the court, no one should presume to set a limit to the good that may be accomplished.

Some concrete cases may best illustrate the working of the Juvenile Court and probation system. H. F., fourteen years of age, broke into a store and took some goods. He is proceeded against as a "juvenile disorderly person." He admits his guilt. The seriousness of his act and its consequences are brought forcibly before him by the judge. He can be sent to the industrial school till his majority. He is made to realize that he has no right to expect anything else. Sentence is pronounced. Like every other boy, he has a dread of the institution. The judge asks him if he would like to stay at home. With tears in his eyes he is ready to promise anything. After explaining to him the nature and sacredness of a promise, its value to him if kept, and the consequences of failure, the judge accepts his word of honor to obey the requirements of the court. His sentence is suspended during good behavior, and he is released on probation under the care of the officer and the parents, who, the judge is assured, are well-meaning people ready to co-operate with him. That is not all. The child is required to report statedly to the court, and may be called to account at any time for any breach of its rules. If his conduct is good, he is encouraged and commended, his pride is aroused, his self-respect appealed to, his manhood praised. If a bad report is made, the judge talks to him privately as one who understands his troubles, sympathizes with him, and wishes to help him as a friend. His confidence won, he begins to take pride in proving himself worthy such a friend.

Before the days of the Juvenile Court a boy eleven years old who, thru the natural desire to make a kite, stole a razor from a barber shop because his father angrily told him to get a knife the best way he could, was sentenced to jail and served his time, coming out to begin a career as thief and burglar. A completed sentence in the industrial school wrought no transformation. Once more he is hunted as a desperate burglar of sixteen. This time he is brought to the Juvenile Court. In spite of all the mistreatment this boy had undergone, he yielded to kindness and sympathy, and for nine months had a satisfactory record on probation, after which he was placed in a military school.

Some cases are less hopeful from the beginning. Little J. F., who, at eight years and seven months of age, had to his credit, or rather discredit, habitual truancy, the theft of a bicycle, a velocipede, and various other small articles, who in one week burglarized two stores, and was found on the street at one o'clock at night with his pockets full of money and a box of candy under each arm, was, in the estimation of the court, a doubtful subject for probation; especially as his father was a drunkard and had deserted the mother and family of seven children, of whom he was the eldest. The hopeless lack of home surroundings make successful reformation in such cases next to impossible outside the institution.

Fortunately such cases are rare. In from 85 to 95 per cent. of the homes of juvenile delinquents sufficient co-operation can be had from the parents to justify placing them on probation. When we learn that in several of our large cities not over 5 per cent. of those placed on probation have to be returned for breaking their parole, we are forced to admit the superiority of the new method. The reason is not far to seek. It is the method of love, not vengeance; the method of helpfulness, not condemnation. The fact that in one city one hundred and fifty boys, voluntarily or thru the influence of other boys, have come to the judge, made a clean breast of all their misdeeds, asked to be taken under the care of the court, and helped out of their difficulties, speaks volumes for the boys' appreciation of the fairness and squareness of their treatment by that court. The delinquent boy's sense of fairness and justice can be far more readily appealed to than that of the criminal adult. Once aroused, he can be depended on. He can do more in one week to convict men guilty of violation of liquor and cigarette laws than a police force can in a year. He can break up the criminal tendencies of his gang when all other methods fail. He can do more to make a good citizen of himself, when properly directed, than all the powers of harsh authority. Help the child to the best chance possible, and he will make a man of himself. Reformation is better than punishment. Formation is better than reformation. Direction is better than correction.

II. RELATION OF THE HOME TO THE WAYWARD CHILD

OSCAR CHRISMAN, PROFESSOR OF PAIDOLOGY, OHIO UNIVERSITY, ATHENS, O.

I have been wondering how to define a wayward child. When we read Swift's 'Criminal Tendencies of Boyhood,"[1] and recall our own boyhood, the question is not, "Why do we have so many wayward children?" but rather, "How did any of us escape from being wayward children?" I did not do everything that was bad when I was a boy, nor did I do everything that was good. The only reason I can see why we did not all grow up to be among the wayward children is not that we were not wayward, but rather that we were not wayward most of the time, and the waywardness kept growing less until we got far enough away from waywardness to keep away. Yet everyone here today has at least some one thing in his nature against which he must wage an everyday fight to keep it down, and which he fears may some day get the supremacy. Our growing away from waywardness was by our doing more good things than bad things, and thus we became gradually habituated to incline toward the better things; and as these better things came our way, we naturally took them up rather than the worse things.

On the contrary, the wayward child becomes habituated to doing the worse things rather than the better things, so that when good things come his way, he passes them by and takes the bad things. That is to say, the mind exercised in a certain direction, modes of habit are formed in that direction.

But the above does not tell just why one child falls habitually to choosing the good most of the time, and another child falls to choosing the bad most of the time. This can be answered only by the same old questions of heredity and environment. This paper has to do with such questions herein only as far as the home is concerned.

There are two forces at work in the family to produce degenerate children, and the effects of which we cannot know fully, which are alcoholism and prenatal influence. There is one phase of alcoholism which seems to be on the increase, and to which much attention is being attracted now; this is the use of patent medicines by the mother. In the 1902 *Reports of Food and Drug Inspection* by the Massachusetts State Board of Health I counted eighteen patent medicines which are set down as containing over 25 per cent. of alcohol, reaching as high as 47.5 per cent. of alcohol, and "the dose recommended upon the labels of the foregoing preparations varied from a teaspoonful to a wineglassful, and the frequency also varied from one to four times a day, 'increased as needed.'" Surely women who use these to excess must bear degenerate children, if it is true at all that the use of alcohol degenerates the race. Since it is true in nature that there is a tendency to degenerate where conditions favor such, we can see that alcoholic parents place the children born to them in condition for a descent from normal.

Our knowledge is so meager of the second element mentioned above—prenatal influence—and so much is in dispute, that it is difficult to decide in reference to it. Just how far the condition of the mother affects the unborn child there is no definite way to determine. We know that the physical condition of the mother greatly affects the physical condition of the child, and hence it seems as if the mental condition of the mother must affect the mental condition of the child. As degeneracy is very greatly a physical condition, and as the mental condition reacts on the physical, both the physical and mental condition of the mother may affect the child, and prenatal influence may be one great cause of degenerate children.

One cause for degeneracy is the amount and kind of food of children. Experiments made upon animals show how greatly food conditions affect them; so food conditions must more greatly affect the young of man. It is a noted fact that children admitted to reform schools show very greatly the lack of proper food, and about the first thing to be done for them is to build them up thru proper feeding. Thus the tendency of the young to degen-

[1] *Pedagogical Seminary*, Vol. VIII, p. 65.

erate is aggravated by lack of proper food. Not only does this concern the food itself, but also the preparation of it as well.

One of the greatest influences on the child is the incomplete home, where one or other of the parents is missing all of the time or a great part of the time, and which shows how important to the child are both the father and the mother, and that monogamy is the best form for the rearing of children. This brings up, too, the effect that will come upon children of the future if there continues an increase of those things that are taking the mothers and the fathers away from the homes both day and night. With all that may be said against the stepmother, I believe that in the far greatest number of cases the child that has a stepmother is in much better condition than the child who is entirely without woman's influence in the home.

With all the home influences, however good, that may be brought about the child, there is one instinct that can never be eradicated, and in the boy is so strong as to cause him to be impelled toward a wayward life. I mean the migratory instinct. This is a race-instinct, and often cannot be overcome till a migration takes place; and even then it may be continued. In the large majority of cases the boy tries it but once; but if the instinct is very strong or the home surroundings are very unpleasant, and especially if both these happen together, the boy remains away, or tries it a second or more times, till he is given up by the parents.

The school must reecognize the need of helping these wayward children by helping to make good homes for them. After an address I gave not long since before a parents' and teachers' club I asked of the mothers present if they found that their daughters gave less time to learn to do housekeeping than when they, the mothers, were girls; and the answers were that such is the case, that the school duties are more burdensome, and that the social and church duties require much more time. Such being true, the education of the school should be made, more than it is at present, a preparation for the home. Especially is this needed where the mother is taken from the home to work, and also for those homes where the mothers rarely understand home-keeping and home-making. In this way the school should better prepare the girl for home life, and thru her elevate the home. Thus the school could do much more for the wayward child than it is doing; for the child of the future could thus have a much better home, and would want to remain in it. If education still continues to take more of the girl's time, and yet fails to prepare her for home-making, the home of the wayward child will still grow to be less and less helpful to him, and he will be driven from it even more than now.

DISCUSSION

Linus W. Kline, State Normal School, Duluth, Minn.—In opening the discussion of the topic of this morning I wish to direct attention to its timeliness. American life and living are pitched at such a high scale that the fundamental powers and virtues of our people are put to a severe test. Evidence of this is on every hand. It is seen in the early aging of our people, in the precociousness of our children, in the increasing growth of nervous diseases, in the lack of self-control in many unexpected quarters, and in the frequent outbursts of the mob psychosis. And there is every reason to suppose that these conditions will become more acute, and therefore ways and means for their cure and prevention more urgent, in the immediate future. Furthermore, I am persuaded that advance in this exceedingly difficult field must be made by specialists in psychology, in insanity, and in sociology. In the meantime, while waiting for definite knowledge, principles, and rules for guidance from the hands of experts, lay members of the teaching profession will more likely sustain a wholesome attitude toward the child by adhering to a cheerful optimistic philosophy.

We can yet a while afford to have our work-a-day philosophy beclouded by a bit of

mysticism and nourished by sentiment, to the end that we may believe that the child is nature's best effort to begin the human species aright.

To those of us who are observing and investigating I would suggest that we have a very special care not to confuse normal growth-processes with abnormalities; not to confound instincts with mental diseases; not to mix up unconscious cruelties, lying, and the like with chronic moral perversions. The lack of attention and concentration on the part of the child is too often labeled a fault by parent and teacher, whereas the probable truth is undevelopment. The fault is not in the child, but in the teacher who expects a faultless attention from immature minds.

My own studies on truancy indicate that it is at bottom an instinct performing a useful function, but may be perverted by incompetent parents, a deficient home, and an over-bookish schoolroom. Truancy is an evil, but the instinct which lies back of it is a wholesome force in civilization, when wisely directed.

M. P. E. Groszmann, director of the Groszmann School of Atypical and Nervous Children, Plainfield, N. J.—Some of the children born with some of the following signs to an abnormal degree are likely to develop criminal tendencies later in life: (1) lack of judgment and lack of self-control; (2) inability to see the wrong in untruthfulness; (3) prolonged uncleanliness; uncleanliness should be changed to unusual cleanliness about seventeen to eighteen years of age; (4) lack of purity; (5) an uncontrolable temper which will lead to erratic action. Physical characteristics, such as large ears or a high palate, are often held by experts to be signs of waywardness, but this does not generally hold true.

E. G. Dexter, Department of Pedagogy, University of Illinois, Champaign, Ill.—In my opinion, truancy is nothing more or less than a natural corrective for some ailment of nature. The child goes on a truant expedition in order that nature may correct some natural limitation, which under our present school system cannot be corrected in the schoolroom. If the child who is habitually truant and wayward is naturally, physically limited, as shown by Dr. Kline, such as being small in stature or undeveloped in one line or another, it is necessary for him to get a natural development by outdoor exercises which outdoor life will give him. Truancy, then, is but a natural corrective for natural limitations.

Miss Mary R. Campbell, of the Chicago Hospital Schools for Nervous Children.—External signs of degeneracy cannot be depended on as indicative of criminal tendencies, as shown by expert judgment of educators and physicians.

DEPARTMENT OF PHYSICAL EDUCATION

SECRETARY'S MINUTES

FIRST SESSION.—TUESDAY, JUNE 28, 1904

The meeting was called to order in Physical Culture Hall of Washington University at 2:30 P. M., by E. Hermann Arnold, of New Haven, Conn., president of the department. After words of welcome to those present, the president read a paper on "The Importance of Walking in Physical Training."

The next topic was announced as "The Objects and Methods of Physical Training in Primary and Grammar Schools: (*a*) from the Standpoint of the General Teacher; (*b*) from the Standpoint of the Physical Training Teacher." The first speaker was W. W. Chalmers, superintendent of schools, Toledo, O. He was followed by William A. Stecher, director of physical training, public schools, Indianapolis, Ind. These papers were discussed by C. C. Miller, superintendent of schools, Lima, O.

Mrs. Mary H. Ludlum, instructor in physical training, Central High School, St. Louis, Mo., next read a paper on "The Objects and Methods of Physical Training in High Schools from the Standpoint of the Specialist."

She was followed by Miss Elsa Pohl, physical director of the Girls' Gymnasium, McKinley High School, St. Louis, on "Physical Training Exhibits in the Physical Training Department of the Exposition."

The meeting then adjourned until Wednesday at 2:30 P. M., at the same place, to attend an exhibition of gymnastics to be given under the direction of A. E. Kindervater, supervisor of physical training in the public schools and director of gymnastics in the St. Louis Turnverein.

ILLUSTRATIVE PROGRAMS

UNDER THE DIRECTION OF A. E. KINDERVATER

WEDNESDAY, JUNE 29, 2:30 P. M.

In the World's Fair Gymnasium at the Stadium, by classes of the local gymnastic societies and the Central Y. M. C. A.

1. Dumb-bell and marching exercises, by boys of the North St. Louis Turnverein; Otto M. Koenig, instructor.
2. Bar-bells exercises and dancing steps, by girls of Concordia Turnverein; Karl H. Heckrich, instructor.
3. Class work on parallel bars, by juniors of South St. Louis Turnverein; Louis M. Kitthaus, instructor.
4. Dancing steps and posing, by ladies of Concordia Turnverein; Karl H. Heckrich, instructor.
5. Marching drill by juniors of Central Y. M. C. A.; Dr. Kennedy instructor.
6. Marching exercises with flags and fancy steps, by ladies of St. Louis Turnverein; A. E. Kindervater, instructor.
7. Individual work on apparatus, by juniors of Concordia Turnverein; Karl H. Heckrich, instructor.

THURSDAY, JUNE 30, 10 A. M.

In the World's Fair Gymnasium at the Stadium, by classes of the public primary, grammar, and high schools of St. Louis, showing physical culture as it is practiced daily.

1. Calisthenics and Gymnastic games for first and second grades, by pupils of the Clinton School; Miss Martha Courte, teacher.
2. Calisthenics for third and fourth grades, Lessons 1 and 11 showing the progression in the year's work, by pupils of the Charless School; Miss Ella Ryan teacher.

3. Calisthenics and wand exercises for fifth and sixth grades, by pupils of the Blair School; Miss Bertha L. Zollner teacher.

4. Wand and Indian club exercises for seventh and eighth grades, by pupils of the Irving School; Miss Kate A. Jones, teacher.

5. Class work of a daily program, by twenty-four girls of the McKinley High School; Miss Elsa Pohl, instructor.

6. Running and class work on apparatus, by boys of the McKinley High School; Karl H. Heckrich, instructor.

7. Class work and dumb-bell drill, by girls of the Central High School; Mrs. H. Ludlum, instructor.

8. Wand exercises, by twenty-four boys of the Central High School; Louis M. Kittlaus, instructor.

SECOND SESSION.—THURSDAY, JUNE 30

The meeting was called to order at 2:30 P. M. by President Arnold.

A paper on the "Objects and Methods of Physical Training in Normal Schools, from the Standpoint of the Special Teacher," was read by G. B. Affleck, director of physical training, Iowa State Normal School, Cedar Falls, Ia.

"Objects and Methods of Physical Training in Colleges and Universities, from the Standpoint of the General Teacher," was presented by R. H. Jesse, president of the University of Missouri, Columbia, Mo.

"Physical Training Exhibits in the Educational Building of the Exposition," by Miss Mary Ida Mann, director of the Women's Gymnasium, University of Missouri, Coumbia, Mo., was next presented.

On motion by Dr. Gulick, of New York, a resolution was passed thanking those who took part in the illustrative programs, especially as the drill was given after the schools had been closed for some time, when it was especially difficult to keep pupils together for such exercises.

The election of officers for the ensuing year resulted as follows:

For *President*—E. Hermann Arnold New Haven, Conn.
For *Vice-President*—Miss Rebecca Stoneroad, Washington, D. C.
For *Secretary*—G. B. Affleck, Cedar Falls, Ia.

The department then adjourned.

MARY H. LUDLUM,
Secretary pro tempore.

PAPERS AND DISCUSSIONS

THE IMPORTANCE OF WALKING AS A SCHOOL EXERCISE

E. HERMANN ARNOLD, DIRECTOR OF NEW HAVEN NORMAL SCHOOL OF GYMNASTICS, NEW HAVEN, CONN.

In selecting the exercise material for physical training in general, but especially that for the use in public schools, there are numerous points of view from which to make the selection. We may choose an exercise for its general or special hygienic effect or its educational value, but the utility of an exercise should also be considered. If we look at walking as an exercise, from these view-points it would seem as if its special hygienic value would be low.

In common walking, on level ground, next to no muscular effort is made. It is simply a supported falling; this being the case, the activity of the circula-

tory and respiratory apparatus is but little increased. Muscular efforts being few and of low grade, muscular development is not furthered to an appreciable degree by walking. To conclude from this that, unless the walking were done in open air—when we should get the general benefit of inhaling better air than indoors—it would not have even a general hygienic value, would be greatly to underestimate walking as a health-furthering exercise. Even if walking is done in a leisurely manner on level ground, and we get no pronounced benefit on circulation and respiration, there remains the decided influence of walking on the digestive functions. This influence depends on the jar caused by the impact of the foot which is advanced to catch the forward falling body and prevent its striking the ground. This leg meets the ground without being able to act much as a spring, owing to its extended position, and therefore transmits a considerable shock to the body. This shock would have a disastrous effect on the central nervous system (spinal cord and brain), were it there not reduced by the peculiar construction of the spine.

I do not intend here to enlarge on the mechanism by which this is effected. It may suffice to state that the shock in common walking is not much felt by the central nervous system, and has therefore no unwholesome effect on it. It is felt in much greater measure by the abdominal organs. These facts are so obvious, and can be demonstrated so readily to everyone's satisfaction, that it is quite unnecessary to spend time on its explanation. The shock received by the abdominal organs—namely, the several glands and the intestines—acts as a mechanical stimulus on the sensory nerve-endings situated in these organs. As a reflex consequence of such stimulation we may get in these glands and the intestines greater blood supply and greater secretory activity. A necessary outcome must be, on the one hand, better digestion; on the other hand, exgestion. In our times, which tend, by the prolongation and intensity of school life, and by the greater transportation facilities, to the sedentary habit, there is the ever-increasing evil of constipation, which were it the only one, would be sufficient reason to urge the necessity for walking as an exercise. It we consider that by changing the rhythm of walking so as no longer to permit the use of the leg in the manner of a pendulum, which means either a slower or a faster movement of the leg swing than its ordinary pendulum swing, we transform the leg movement into a very pronouncedly muscular one, we see how easy it is to add to the hygienic value of walking; for the slow, as well as the fast, walk, necessitating muscular effort, must have a beneficial influence on circulation and respiration. In passing, I may draw attention to the great convenience of this exercise. This recommends it especially as an exercise for pupils the condition of whose hearts and lungs is not well known, and for whom therefore mild and easily graded exercise is always preferable with which to begin physical training. I will also merely mention the advisability of using the slow step as an indoor, the fast walking as an outdoor, exercise. Ascending and descending hills changes walking from an unmuscular exercise to one in which the muscular effort ranges from

very little to the degree of utmost muscular exertion, depending upon the grade of the hill and the velocity of ascent or descent.

We have then in walking a general exercise with pronounced effect on respiration, circulation, and general muscular development, in which exercise the above-cited effect on digestion and exgestion is of course increased many fold.

For all these reasons I plead for walking—extensive walking, fast walking, walking up and down hill—as a most beneficial form of exercise. As a part of a scheme of physical training walking has decided advantages. It needs no apparatus, no special suit. It can be done indoors and outdoors. It is a safe exercise. It needs not the guidance of a special teacher. It is therefore within the reach of all individuals and of all school organizations. Moreover, it can be directly connected with the other forms of school exercises, thus doing away with the oft-heard outcry that physical training takes too much time which is needed for other branches. It is not only perfectly feasible to combine this exercise with such branches as botany, zoölogy, mineralogy, geology, geography, and history, but it is very desirable to teach these branches in an objective manner by demonstration, occasions for which are abundantly offered by long walks. I enter therefore a strong plea for the school excursion—the walking one, be it understood. This must not be deferred till the child reaches the secondary school or college, but should be begun in the lowest primary grade.

There is one more consideration which lends importance to walking as a school exercise. Walking is a universal form of movement. It is performed with much more frequency than any other movement. It makes, therefore, a great deal of difference whether it be performed aright or not. If a person walk on an average of five thousand steps daily, and should take these steps in such a bad mechanical manner that he had to overcome with each step only two foot-pounds more resistance, he would require for the performance of such walking ten thousand foot-pounds more energy than a person whose mechanics of walking were correct. Such greater exertion in performing an exercise which in itself is non-productive deducts from the working capacity of the individual in a most decided way. Walking becomes thereby a most important factor in industrial and commercial life. It has a high economical value for each individual, and of course for the community. As it is the purpose of the school to fit for life, the school cannot neglect such an important matter as the ability of the children to walk correctly. It owes it to them as a part of their armament for the strife of life. The teaching of correct walking belongs to the special teachers of physical training; to them, therefore, I wish to emphasize the importance of walking as a school exercise.

THE OBJECTS AND METHODS OF PHYSICAL TRAINING IN PRIMARY AND GRAMMAR SCHOOLS—FROM THE STANDPOINT OF THE GENERAL TEACHER

W. W. CHALMERS, SUPERINTENDENT OF PUBLIC SCHOOLS, TOLEDO, O.

I shall treat this subject in the following order: (1) a general discussion of the necessity of the department of physical training in the public-school course; (2) the objects to be kept in view in planning this work; (3) some good methods of securing satisfactory results in executing these plans.

I speak today from the standpoint of the general teacher. The subject of the hour is how best to fit the child to enjoy the fullness of life. It is not how to train the child-mind, but how to educate the whole child. I feel honored in my assignment upon this program. I leave the place of the director, and today represent the general teacher, the workman, the producer, the soldier upon the firing line.

To educate a child means to draw out and develop all his mental, moral, and physical possibilities. In the early history of this country the physical education of the child was so well provided for by his rural opportunities and social necessities that it was not taken into consideration in arranging his public-school education. The past few decades have brought about many changes in the educational necessities of the child. This is especially true in the cities. The center of population has moved from the country to the city. How the city-bred child misses the vigorous training of the rural environment, the close touch with nature, and the discipline of the regular needs of the family life! For the city boy there is no longer wood to split, water to carry, nor milking to do. There is no longer even a cradle to rock. The disciplinary value of doing the chores must be provided for the city boys and girls, or we shall raise up a lot of non-combative characters that will be utterly lacking in leadership, in initiative, in sterling manhood and womanhood. It is my opinion that the performance of physical skill, requiring vigorous mental and volitional activity, is the best preparation for the proper development of the ability to solve successfully the problems of life. This is the opportunity physical training gives. If the city school does not meet these requirements in the education of her children, it will be weighed in the balance and found wanting. The day of judgment is at hand.

There is no accident about the fact that a large percentage of successful men were reared and educated in rural communities. Contrast the rural education, the physical largely dominant, with the loosely united octagraded city school where the training is almost wholly intellectual. If the boys and girls who have been educated under the "lock-step" system of an octagraded city school organization, where all the pupils in a schoolroom are held together for recitation and study purposes, do not suffer from educational dyspepsia and volitional apathy, it will be because of one of the provisions of the divine economy of nature to which she resorts in case of accident or misuse of the

natural plan of mental and physical development. Especially is this true if the curriculum gives attention to intellectual training only, and omits the physical and general culture phases of educating for life.

God created the human being with physical possibilities and intellectual, social, and volitional powers interwoven and interdependent. This complex human organism must be provided for in our plan of school organization. The whole boy must be sent to school. If you neglect three-fourths of the child to bring about certain abnormal intellectual results, you do this at the expense of the child and incur the risk of mental collapse. I believe that the traditional intellectual curriculum of the past must be leavened with physical training, manual culture, general culture, and industrial ideals. If it is preserved to serve future generations, it must be spiritualized by meeting also the social and industrial side of human life.

Speaking, therefore, from the standpoint of the general teacher, I believe that a course in physical training is desirable and positively essential to the proper education of the children. It is also my belief that this course should not be left to the caprice or pleasure of the general teacher, but should be given a fundamental, and not an incidental, position upon the school program. I believe also that the general plans should be made by one who has had special training for the work, and who is fitted both by education and by nature to direct and supervise the department. Many states have recognized the importance of this subject by making instruction in physical training compulsory.

The state of Ohio has the following law upon its statute books:

> Physical culture, which shall include calisthenics, shall be included in the branches to be regularly taught in common schools in cities of the first and second class, and in all educational institutions supported wholly or in part by money received from the state; and it shall be the duty of boards of education of cities of the first and second class, and boards of such educational institutions, to make provision in the schools and institutions under their jurisdiction for the teaching of physical culture and calisthenics, and to adopt such methods as shall adapt the same to the capacity of the pupils in the various grades therein.

The object of physical training is to educate the whole child; that is, to train him so that he will be able to live up to his greatest possibilities. We desire to educate the child so that he will be able to get the most out of life. This cannot be done without mental training; it cannot be done without moral training; it cannot be done without physical training. Proper physical development cannot be secured without systematic training in a series of exercises having a physiological purpose and bringing into activity all the muscles of the body.

Every exercise should be directed by a system of commands which suggests the movements to the pupil. In this way the training of the intellect and will goes hand in hand with the physical development. Corrective exercises should also be provided. In this way children who are afflicted with natural or acquired deformities will be helped at a time when their bones are soft and yielding.

With these facts in mind, the following exercises are suggested:

1. Careful attention to correct standing, sitting, walking. Corrective exercises given to commands, where every part of the body is exercised in every lesson; the lesson to be given twice every day.

2. The mind must be engaged, but not strained, during physical exercises. The lesson, therefore, should be short, and followed by a game or some means of relaxation.

As a general plan of distributing the above suggestions over the years of the elementary-school course, I would suggest the following:

First and second grades: Gymnastic stories and plays, together with simple free-hand exercises and motion songs.

Third and fourth grades: Free-hand exercises, including the simple forms of Swedish gymnastics, with motion songs and games.

Fifth and sixth grades: Swedish exercises of more advanced character, military drill, dumb-bells, and bean-bag games.

Seventh and eighth grades: Advanced Swedish gymnastics, military drill, silent drills, fancy steps and dumb-bells, wands and Indian clubs, with music.

While the child is "having fun," as he calls it, he is getting the best possible relaxation. For this reason the exercises for the first two years should be playful in character, but leading directly on to the more difficult ones of the following years. Some few commands should be given. If the will does not work at all, the movements are listless and the circulation of the blood so slow that weariness, instead of vigor, follows.

After the stories and plays of the first two years, the children should begin the real Swedish work. The lessons should be from eight to ten minutes in length, usually finished with a game or motion song. The exercises or tables should be given in a schoolroom or gymnasium filled with plenty of fresh air, and with a temperature of from 65° to 68° F. Following the drill, the school should be sent to a playroom or a playground for about ten minutes of free play. This should be followed both morning and afternoon thruout the elementary school life of the pupil.

The gymnasium or schoolroom gymnastics—for disciplining or training; for pleasure, health, and skill—should include, first, head exercises, to secure correct poise of the head and chest, and a development of the muscles of the neck; second, arm exercises, to secure a development of chest, shoulder blades, and arms; third, trunk exercises, including lateral trunk movements, to strengthen the spine and flatten the shoulder blades, to strengthen the waist muscles, to increase the activity of the liver, and to improve circulation; fourth, balance movements, to strengthen the ankles, bringing the blood into the extremities; fifth, breathing exercises, to expand the chest and develop lung power, to improve circulation, and to restore the heart to normal action and prevent colds. If these directions are followed, the teacher will find that the children are better fitted, at the close of the physical-training period, to master their studies; and if the course be carefully followed, the result for the pupils, as time goes on, will be: better standing and sitting positions; correct walking; correct breathing; better circulation; freedom of joints and flexibility

of muscles; healthful action of skin, therefore better complexion; greater nerve-power; self-possession in place of self-consciousness; better assimilation of food; more intellectuality, including clearer thinking and concentration.

It is my opinion that there should be provided separate playgrounds for boys and girls adjacent to every school building. There should be both organized and free play. The organized play may be under the control and direction of the grade teacher or the physical-training specialist. Some inexpensive apparatus should be furnished for both outdoor and indoor training.

But it is with physical training as with teaching in all departments: the success of the work depends more upon personality and individuality than upon objects and methods and courses and tables and games. Fortunate indeed is the city whose supervisor can inspire with the best ideals. In our own city the physical-training department does not consist of catalogs and circulars and courses and apparatus. It consists of life and love and sympathy, dispensed by our supervisior of physical training. With us physical training forms a large part of the real life of the school. Our supervisor, who was for several years secretary of this department, is a perfect inspiration. She enters the schoolroom as a ray of sunshine. She has the confidence, esteem, and support of pupils, teachers, and patrons. I make these personal remarks about Miss Pray and her work to emphasize, at this point, the old maxim that the teacher makes the school, and that there is more in the spirit than in the letter. If a teacher or supervisor can fill the room with an atmosphere of helpfulness and good-will and interest, there will be good, healthy growth both of body and mind. Childhood responds to such an environment, even as the bud developes its inherent symmetry and beauty under the sunlight and dews of heaven.

THE OBJECTS AND METHODS OF PHYSICAL TRAINING IN PRIMARY AND GRAMMAR SCHOOLS—FROM THE STANDPOINT OF THE PHYSICAL TRAINING TEACHER

WILLIAM A. STECHER, DIRECTOR OF PHYSICAL TRAINING, PUBLIC SCHOOLS, INDIANAPOLIS, IND.

Not many years ago the subject of most papers on physical training was "The Necessity of Physical Training in Our Schools." The mere fact that the necessity is no longer questioned, but that now we seek to find the methods which give the best results, speaks volumes. It shows that we have passed from the theoretical to the practical stage of our subject; that it now behooves us to study the needs of the public schools of today and to fit our art to the conditions we find. Clearly to understand what is expected of physical training in the primary and grammar schools, and how we can best accomplish it, we will first ask: What are the objects of this training?

Here we immediately find a great diversity of opinion. Those asking the

least say that school gymnastics ought to consist simply of games and work of a recreative character. Those asking most may be represented by the renowned physiologist, Professor Virchow, who says: "It is my belief that only one-half of the school hours should be devoted to study, and the rest to physical training and games." Last of all come those who, with Dr. Hartung, demand

> that first of all it is necessary to lift all physical training, or whatever goes by that name at present in many of our school systems, from that inferior position as a remedial or therapeutic agent, as a repair department for sins committed by faulty and obnoxious school methods and ways of living, to a higher level, and place it on a sound foundation as a truly educational department.

They claim that the first and foremost requirement of any system of physical training for the public schools is that it has for its aim and object the harmonious development of the child's body according to well-defined physiological, psychological, and pedagogical laws. They demand that a system of training for the public schools should have for its objects:

1. A stimulation for growth of the body in general, and development of the vital organs in particular.
2. The development of strength, quickness, and agility.
3. The removal of bodily defects or conditions brought about by school life.
4. The increasing of vitality, so as to give the body that resistance against sickness which is needed to live well.
5. A general basic training of those psychic powers which are necessary for the growth of the will-power, and which are recognized as obedience, submission to rules and order, perseverance, courage, self-reliance, and self-control.

To sum up, this last class of educators claim that the objects of a rational system of physical training must be (*a*) to train and develop the child's body in accordance with its physiological demands, and (*b*) to counteract the evil effects of school habits caused by prolonged sitting or by unhygienic conditions.

To arrive at a correct solution of the problem, what the objects of school gymnastics must be, it becomes necessary to inquire, first, What are the conditions of modern school life which must be taken into consideration when choosing exercises? and, second, What are the physiological demands of a child between the ages of six and fourteen as to its growth and development?

Up to its entrance into school a child has led a comparatively free life. In general, it moved about wherever it pleased—sang, played and ran. It was out of doors, in the sunshine and fresh air, most of the time. With its entrance into the school all these conditions immediately changed. It now must remain in a closed room five hours a day. Crowded yards at recess offer little chance for play. The school requires that it be quiet. The demands of writing, drawing, sewing, etc., keep the child in unnatural positions for hours. Its time for play is greatly restricted, and the lungs, instead of developing and expanding, suffer because of the child's long sitting. Heart and circulation also suffer from loss of action. Then the air in nearly all schoolrooms is impure. The eyes often suffer from poor light, too much work, or incor-

rect seating. The desks and benches are often ill fitted. In short, we find that school life gives the child conditions which are radically opposed to those needed for its bodily development.

Modern physiology tells us that the necessity for muscular exercise becomes greater the more the demands for mental development grow, and the more artificial the lives of city children become. But the modern school does not recognize this. Children also now go to school more years than formerly. The school work itself is of a more intense character—all leading away from muscular work.

The life of a normally developed child is one of continual activity during all of its waking hours. It seldom is still for any length of time, and many a teacher has found one of her hardest problems a boy, or girl, so full of vitality that he cannot be still for a minute. Yet our school life asks that this child remain quiet for hours. We are not only supposed to suppress that activity which is an integral part of the life of every normally developed child, but we are also asking the child to pay close attention to processes which develop its mind. As Dr. Gulick so aptly expresses it: "The demands of our schools bring a coincident decrease in muscular work and an increase in lines that are purely neural."

What does physiology teach us is going on in the bodies of our pupils during these first eight school years? Children enter the first grade at about six years, and leave the grammar schools at about fourteen years of age. According to the child's physical development, the noted physiologist, Dr. F. A. Schmidt, divides these years into two periods; the first into three years, from six to nine years, and the last into five, from nine to fourteen years. During the first period the child accustoms itself to the physical conditions of school life. In this time a great development of the bones, especially of the head, takes place. It is also, usually, the end of dentition. The second period—that is, up to the beginning of puberty—brings about a strengthening of the skeletal frame, and the muscles continue to grow more enduring.

During these years of childhood we find the heart comparatively small and the arteries large. Children of this age will run until breathless, but on account of the larger arteries, even when the heart beats rapidly, the blood pressure is not very great and is soon equalized. Dr. F. W. Beneke in his researches found that from birth to the end of the fourteenth year the volume of a child's heart increases on an average 8.21 c.c. per year; from the fourteenth to the eighteenth year it increases on an average 37.5 c.c. per year. The circumference of the aorta above the heart after birth is 20 m.m., and at the end of the fourteenth year 50 m.m.; that is, a yearly average increase of 2.14 m.m. The average increase during the following four years is nearly 3 m.m. This shows that from the first to the fourteenth year the heart has increased five and three-fifths times, while the arteries have increased only two and one-half times. In the following four years the volume of the heart is doubled, while the arteries increase only a little more than one-fifth.

At the end of the period of growth in adults we find that the volume of the heart has increased only 20 c.c. more than it was at eighteen years of age, and the circumference of the aorta is only 6.5 m.m. more, showing that the growth of the heart is very small after the eighteenth year.

If we now remember that function makes or modifies structure, and that every organ will reach its highest development, if it receives its proper exercise at the time of its greatest growth, these investigations have given us a guide to lead us in the selection of exercises that are of the greatest value at certain periods of a child's life.

They show us that during childhood the heart is comparatively small, and the arteries wide; that a rapidly working heart finds little resistance and can send the blood quickly thru the body; that the molecular changes naturally are more speedy; and that growth and an increase in strength will result more quickly in children than in adults. In adults a comparatively large heart and small arteries increase blood pressure, and consequently the heart must work slower and with more strength. Concluding his researches, Professor Beneke says: "If practical hygiene is to become a truth, than the development of a strong heart must be our chief aim."

The normal development of the heart during the period of its greatest growth is of prime importance for the maintenance of health, as well as for gaining and preserving the greatest bodily power and resistance. To choose exercises that promote heart-growth must, at this period of a child's life, be our principal aim.

We will now consider the development of the lungs. Experiments have proved that only about one-sixth of the air in our lungs is changed during ordinary breathing. When greatest inhalation and exhalation take place, this amount is increased five to six fold.

Investigations have shown that children from six to fourteen years of age average twenty-four respirations per minute. The number and depth of respirations are increased by muscular exercise, when there is an increase of carbon dioxide to be got rid of, caused by the molecular changes in the working muscles. According to the researches of Edward Smith, the exchange of gases in our lungs is as follows: Taking the exchange going on when lying on our backs, the increase when sitting will be to 1.18, standing to 1.33, slow walking to 1.90, ordinary walking, to 2.76, fast walking to 7, running to 9, foot-racing to 13, and rowing in a race to 20. This goes to show that increased respiration goes hand in hand with increased muscular exercise, which causes a great quantity of carbon dioxide to be liberated by the working muscles, which in turn must be expelled by the lungs.

Knowing that school children during their daily work have little incentive to breathe deeply—yes, that in most of their occupations in the benches they generally assume positions that limit the exchange of air—it develops that another of the main objects of educational gymnastics for our schools must be the proper and full development of the respiratory organs. What is neglected

in the first eight school years can never wholly be regained later in life. The relations which deep breathing and the proper oxygenation of the blood bear to its enrichment and to the vigor of the circulatory system show the importance which correct and deep breathing have for our physical well-being. Even if we use only about one-sixth of our lung capacity for the needs of every-day life, and if a slightly increased capacity will be enough to let us walk about without becoming breathless after a few minutes, this is not our ideal of a healthy person. We expect everyone to have enough reserve capacity to be prepared for the emergencies of modern life, and in order to meet these, the unused portions of our lungs, which degenerate from non-use, must be developed and kept healthy thru proper exercise.

Axel Key, in his hygienic investigations among the school children of Stockholm, found that after attending school one year every thirteenth boy was anemic, after two years every seventh, and after three years every fifth boy. In the private schools of the same city he found that 18.8 per cent. of the girls of seven years of age were chlorotic, while at thirteen years of age 39.7 per cent. were so. "The school conditions," says Key, "which bring about such pernicious results are undoubtedly the long hours of sitting, in connection with a minimum of bodily exercise."

Altho but little is known of the functions of the different portions of the brain, we do know that it is necessary to develop certain groups of muscles if the corresponding nerve-center is to be developed. Dr. Wey, in his experiments with the dullest pupils at the New York State Reformatory at Elmira, years ago proved that with a vigorous bodily training there came to the unfortunates under his control a mental improvement which was marked. He also proved that this mental awakening was not only for a short time, but that the pupils with whom he had experimented continued to improve mentally as well as physically. Modern science has taught us that man is an organic unit, and that a mutual relationship and interdependence exist between mind and body. It is just as true that the mind exerts an influence upon the body, as that physical activities produce either good or bad effects upon the mind. In the words of a renowned educator, the late Colonel Francis Parker:

> It may never be known scientifically what a tremendous influence the body and all its organs, every nerve and muscle, vein and artery, exert upon the brain, and consequently upon the intellect. The more I see of physical training in the schools, the more I believe in it; the more I study psychology, especially physiological psychology, the stronger my belief becomes in physical training.

When we now ask which exercises are best suited to bring about the bodily development desired, we find that the interest a child shows in special forms of bodily activity is a safe guide as to what it needs to develop its body. In preparing gymnastic movements for the school life we must choose such exercises that develop a strong heart and an effective respiratory system; that stimulate the digestive organs so that they may keep the blood rich in tissue-forming and energy-expending elements, so that a strong foundation may be laid upon which can be built a healthy mental activity.

Our investigations have shown us that a normally developed child demands bodily activity; that exercise is as necessary for a child's growth as is nutrition; that during the first eighteen years of a child's life the vital organs grow most; that if they are not given the proper exercise then, this neglect can never later in life be fully remedied. Having all this in mind, we find that a system of physical training for the primary and grammar grades must be arranged from the following standpoint:

In the first period, from six to nine years, the child needs exercises that conform as much as possible to those forms of activity to which it has been accustomed in its pre-school years. These are largely movements which stimulate the circulation, respiration, and nutritive functions—movements which engage large groups of muscles and which demand little expenditure of nerve-force. Localized or complicated exercises, which take all the strength of a child and draw from the reserve materials stored in the muscles, must never be taken. The growing child needs this stored up reserve for its growth and development. Strong muscular exercise in these years does not increase the capacity and volume of the muscles as with adults, but it results in stunted growth and a serious disturbance of nutrition. We find, therefore, that for the first school year movements which give much exercise to the largest muscle groups, and which stimulate heart and lungs, are needed. These are mainly the so-called exercises of quickness found principally in the play-form of gymnastics and games. When the facilities are at hand, easy exercises on the hanging and swinging apparatus may also begin with the lowest grade; also the simpler forms of jumping. We find further that, on account of the difficulty of sufficiently ventilating the rooms, and in order to do most good, these movements should not be taken in the schoolroom. If possible, they should be taken out of doors, or in corridors or halls.

In the second period of school life—that is, from nine to fourteen years—the inducement to growth and development, and counteracting the detrimental influences of sitting and an indoor life, are still the main demands to be met by educational gymnastic work. Progressing from the forms of exercises taken in the first period, the movements of quickness must be increased and diversified and also made more complicated; they must now begin to take the form of skill. Running for a few minutes, and other exercises requiring endurance, must also be given recognition. To make the work more interesting for the upper grades, and also to keep up a steady progression, free movements demanding greater co-ordination, and also exercises with wands, dumb-bells, and clubs, should be introduced. Easy exercises upon apparatus, especially such demanding skill—but no movements requiring strength or endurance—must be continued. After the twelfth year, when the bones and muscles have become stronger, the simpler forms of apparatus exercises developing strength, endurance, and courage demand recognition, and should be introduced. Games, especially the more intricate forms of ball games, are a delight to children of this age. Swimming and skating, moderate bicycle-riding, and walking long distances must be encouraged.

The question now arises: How much time should be devoted to gymnastics daily? It may be some time before our school boards will subscribe to the demand "that the time needed daily for physical training must first be set aside, and the remainder apportioned to the mental studies," or that they allow Professor Virchow's claim of "one-half of each day for physical work;" but when by the foregoing we have shown how necessary this training is, and when in our daily rounds among the schools we see how much time is wasted on mental studies, because the children are physically unable to concentrate their attention upon the subjects before them, the matter appears in a different light. The standpoint we must take is that no school has a right to impair the health of a child in order to teach it any mental art. Health first, then culture, must be the motto of every rightly conducted school system.

But how much time is necessary for this? Taking the experience of schools that have had physical training for years, it is safe to say that the least time required for physical work, including recesses, is one hour per day. This time is best divided as follows: first, two recesses per day, thirty minutes; second, one gymnastic lesson, twenty minutes (or in the lower grades two periods of ten minutes each); third, compensatory exercises (to be taken four or five times per day, after each period demanding sitting), ten minutes; making sixty minutes in all. The recesses shall be devoted to games of all sorts suitable for the ages of the children; the school to furnish the necessary apparatus, balls, jumping stands, etc., for these out-of-door exercises. Sectional recesses should be arranged, the smaller children to play first, to be followed by the larger, so as to give a maximum of yard space for these games. In rainy or inclement weather the games are to be held in the halls or basements. During the winter time arrangements should be made to flood parts of the school yards so that pupils may practice skating. In schools having a gymnasium or assembly hall fitted up with gymnastic apparatus I would recommend three gymnasium periods of at least thirty to thirty-five minutes each per week, one-half of which to be devoted to free exercises, and the other half to apparatus work and games. An arrangement of this kind, however, is not to interfere with the recesses or to do away with the compensatory exercises. (By "compensatory exercises" I mean the two or three minutes of vigorous exercises for the trunk which are to follow every period devoted exclusively to mental work.)

To get the best results, gymnastic activity requires adequate room and time, as much air and light as is possible, and a variety of apparatus. One of the most urgent requirements, to which attention must continually be called, is that every school building should be provided with an adequate place for gymnastics, with a complete equipment of gymnastic apparatus; if possible, a closed hall, assembly room, or gymnasium for winter and rainy days, and an open, adequately equipped playground for good weather.

The increased cost of a school building with such facilities will not be very large, and the resultant benefits to children and teachers will be so great that the increased expenditure will prove to be a good investment in its returns in

bodily and mental vigor of all occupants. May the time soon come when the words spoken by Rousseau more than a century ago will be recognized by all school authorities, namely that

> The weaker a body, the more it commands,
> The stronger it is, the more it obeys.

OBJECT AND METHODS OF PHYSICAL TRAINING IN NORMAL SCHOOLS

G. B. AFFLECK, PHYSICAL DIRECTOR, STATE NORMAL SCHOOL, CEDAR FALLS, IA.

There has never been formulated a definite and widely accepted statement of the purposes and methods of education. This is necessarily so because of the marked differences in capability, circumstances, and aims of students, as well as the different view-points and purposes of educators themselves. In the field of physical training, which is now regarded as an essential part of every complete education, the individual differences of students must receive special attention, for the teacher is here dealing not with the presentation of an abstract subject, nor with the arrangement of a certain series of facts, but with a human being—a personality—a soul. Thus it is that any statement of the purposes of physical training, other than a general one, would but express a personal opinion, and invite unprofitable discussion, such as has too frequently been engaged in to an extent altogether unwarranted by the results reached.

Let it be granted, then, that the purpose of physical training as a factor in education is to promote the well-being of students; the director is then dignified by the responsibility of interpreting this general principle and deciding upon the details of its application to the needs of the individual. Physical training seeks to enable students to "live at their best," so that during their school course they may make a profitable preparation for life, and that in their career subsequent to school days they may render to the world the most efficient service of which they are capable. This does not mean that they become good animals merely, but comprehends the mental, social, and spiritual, as well as the physical, nature, altho it is true that the physical is regarded as the foundation, and as the means thru which the others may be influenced. A body beautiful, strong, and healthy, under the control of a trained and balanced mind, with both dominated by a high social and moral consciousness, is the ideal which physical training seeks to realize.

But the foregoing may apply to all grades from the kindergarten to the university. That which is distinctive of normal-school students is that they are preparing for the vocation of teaching, and so it becomes incumbent upon the physical department to provide instruction in those subjects upon which rational physical training is based, and to afford opportunity for practical

demonstration in the pedagogic phases of the science. This means that every graduate should know the reasons for everything done in physical work, and have experience, under the supervision and criticism of the director, in the actual organization and conduct of such kinds of work as he may have opportunity to use.

The considerations connected with the methods and conditions calculated to realize the foregoing aims may be roughly grouped under the following heads:

1. *The personnel of the department.*—The time is past when ex-pugilists, broken-down circus performers, and retired or prominent athletes can claim the rank of physical directors; for faculties and boards have come to realize, to a degree at least, the importance of the office. Today directors must be educationally the equals of the other members of the faculty, that their opinions may have weight; they must be true and staunch in morals and character, that they may win and merit respect; they must be thoroly trained and efficient in their special line, that they may wisely caution, advise, and prescribe; they must be consecrated to their work, that they may spend long hours and render unselfish service to those with whom they are privileged to deal; and they must have a firm belief in the nobility of their profession, that they may carry themselves with fitting dignity. The writer would make bold to say that there is no other department which offers equal opportunities for influencing the lives of the students, and hence the importance of insisting upon such a high standard of personal excellence in the directors themselves. In addition to this, there must be unison and harmony among those in the department, for without hearty co-operation there will result a diversity, if not in aims, at least in means adopted.

2. *The equipment of the department.*—A department, in order that it may do scientific and complete work, must be supplied with reasonable facilities. In general, these consist of lecture- and experiment-rooms, examining-rooms and outfit, plenty of free floor space, light and heavy apparatus, special appliances for corrective or orthopedic treatment, lockers and baths, playgrounds, track, athletic equipment, etc. It would seem the part of wisdom to equip gradually rather than to invest at one time a large appropriation. There are so many pieces of apparatus, and so many models of each by different manufacturers, that the greatest caution must be used in selecting. The director must do this on the basis of the needs of the school and his experience with the different makes. Space forbids a delineation of a sample equipment, but a gymnasium of ordinary size, and which will accommodate five hundred students daily, may be well supplied at a cost of from $1,500 to $2,000.

It must never be forgotten, however, that the director is the heart and center of all physical work, and that incomparably better results may come from a limited floor space and equipment, and a few available acres of campus in charge of a competent director, than from a large, conveniently planned, and thoroly equipped modern gymnasium with an inefficient executive.

3. *The relationships of the department.*—(*a*) To the president and governing board: Scientific physical training is as yet in its infancy, not more than 25 per cent. of the public normal schools in the United States having regularly organized departments with trained directors in charge; and in many cases the profession is inadequately or wrongly represented, so that a false notion prevails as to the place and need of such a department in a system. In too many cases the work is regarded as a side line, and is placed in charge of the teacher of another subject, or as a necessary evil which has crept in and must be tolerated because of the prejudice on the part of the students. It is therefore the part of the department to demonstrate a satisfactory reason for its existence, and to prove itself an essential part of the curriculum of the institution. The board should be kept in close touch with the hygienic needs of the students as indicated by examinations, and should know the means employed to remedy such. This may be done by means of reports, personal visitation of classes, explanation of exercises, photographs of cases, exhibitions, etc.

(*b*) To the student body: It is the duty as well as the privilege of every teacher to have an intimate knowledge of his pupils. This is pre-eminently true of the physical director, who by means of the examining-room, playground, etc., has an exceptional opportunity. The physical examination should be scientific and complete, and the results should be accurately recorded and filed in such a way as to be convenient for reference. In selecting measurements and tests it would seem best to use those which relate to vitality, and discard many of the long lists, frequently included, which have little if any significance in view of the purpose of this department in the normal school. The extra time may then be used to better advantage in interesting each student in the improvement of his condition, and in establishing a friendly and sympathetic relationship as the basis for future dealings. When a student knows that the director is a friend and will do everything possible to assist, there will be an opportunity for the best results, for then the student will feel free to consult, and will be more likely to follow advice or prescription. By all means let the examination be conducted as quickly as is consistent with accuracy, but no director should be satisfied with filing a record, as the conditions are most favorable for proving of help to a student who has some difficulty or problem about which he wishes to talk. At least half an hour should be devoted to every examination, and some require even more time. The physical examination is too often merely a formal regulation, objectionable to students, so that a strong plea is here made for the elevation of the private room from a place of dread to one of veritable blessing.

Students should be graded, not upon their classification in other subjects, but upon the basis of their needs or ability as indicated by the examination, or the amount of work previously done. It is thus probable that those who recite together in other classes may be separated in gymnasium work and be assigned to different squads or prescribed individual exercises.

A close and logical classification of exercises upon the basis of their effects is impossible, since the same exercise may be corrective, hygienic, educational, or recreative, depending upon how taken. Still there are types which contribute so strongly to one or other of these as to be specially useful for that purpose and less so for others, and hence are used when a specific result is desired. Generally speaking, all of the foregoing types should be employed in normal schools, and the group upon which emphasis should be laid must be determined by individual needs. The corrective is employed for the effect upon carriage and posture; the hygienic is concerned chiefly with nutritive stimulation and functional activity; the educational aims at psychological results or the control of the body by the mind; and the recreative, thru a minimum of voluntary attention and concentration, seeks to refresh and rejuvenate.

Physical exercises are usually grouped into gymnastic and athletic, of which the former offers the greater variety of conscious movements, and so is employed for corrective or other definite results, as an aid to the obtaining of which many appliances and machines have been invented and are in use. There is a general agreement that, while each of the systems of gymnastics contains much that is good, no one incorporates every desirable feature. The director must then select and arrange scientifically such exercises as meet the needs of his particular school or of an individual student. In arrangement, the exercises should be graded in an order not too rigid, and no student should be allowed to attempt a type of work more advanced than will best contribute to his well-being. It may thus happen that a weak student, A B, may spend a term or year upon a type of work which a stronger man, X Y, may complete in half that time.

It is a matter for regret that athletics have been so much abused in the undue importance attached to the winning of competitive games between representative teams. When physical work is introduced without direction, it generally takes the form of athletics, because such may be conducted with a measure of success without the close supervision of a director, and the results, not necessarily the benefits, are more patent than are positive results from gymnastics. Too frequently athletic sports are confined to the few. It is seldom that more than the first two teams do regular work, because where the winning of games is the measure of success men will not practice unless there is some chance of distinction on a team; and so it is that in schools where only athletics are engaged in not more than 25 per cent. of the men derive any benefit from physical work, and the most needy, the weakly, are debarred. There are many other objections offered to this plan. The likelihood of personal injury, the loss of time, and other evils consequent upon team trips; the problem of the coach, and all that it involves; the question of finance, professionalism, etc., are all aggravated when the winning of games or meets is over emphasized.

But athletics are too valuable to be omitted because in some cases they have been abused, for they may be so organized and controlled as to contrib-

ute directly and materially toward the best interests of the students. If deemed wise, let the popular sports be continued by those who by their examination are known to be fitted for such, but assign everyone to the kind of work best suited for him, and have all report on time, answer roll-call and be dismissed as systematically as in any other scheduled class. Introduce other forms of sport—e. g., field hockey, basket-ball, lawn tennis, golf, cross-country walks or runs, swimming, handball, etc.—and make the attainment of proficiency the object sought. Competitions are dear to the Anglo-Saxon, so have them between squads of the same class or between different classes, having the basis of marking, such that everyone contributes something toward the grand total of points for his squad. This plan of marking has proved successful, and creates surprising enthusiasm and encourages faithful practice for the sake of the success of the gang or group. During the fine weather of spring and fall it is a genuine satisfaction to see the happy faces after an hour's exercise in the fresh air and bright sun, while the few disagreeable days may be profitably employed in considering the rules of the games, in inculcating the principle of fairness and courtesy in contest, or in discussing the theory of the work being carried on.

But the occasional days unfit for outdoor work are not sufficient to give the students an adequate knowledge of the scientific basis of physical education; so it seems profitable to spend but four days per week in practice and one day—e. g., Wednesday—in class recitation upon such theoretical subjects as seem best calculated to give the students an intelligent idea of the rationale of the work, without which graduates cannot be expected to organize or carry on physical work with any degree of success. The day is not far distant when many normal schools will offer a course intended to qualify graduates for the special office of physical directors. The demands for such teachers are becoming so frequent, and those in preparation are so few comparatively that each state must soon prepare in its normal schools the majority of the physical directors for its public and high-school positions.

The foregoing may appear to be an unduly elaborate or cumbersome organization, but it seems well adapted to normal schools which, as will be remembered, propose a broader work than is done in colleges and universities, and attempt to give each student a practical training in organizing and conducting physical work. The class leaders or captains may be chosen from those personally interested and proficient, or whose personality marks them as natural leaders; others may be appointed over smaller sections, so that, at some time during their course, each student becomes responsible, under the supervision and guidance of the director, for the work of some group of fellow-students, or pupils from the training or model department.

In the average normal school there are more women than men, but the same general plan may be successfully applied to either sex.

This plan of grouping renders possible the promotion of the individual student in accordance with his needs or ability in both practical work and

leadership, and may be applied with equal appropriateness to both indoor and outdoor work. Usually the seniority of leadership is reached by those who are approaching the completion of their work in the department. The prescribed costume should be worn during all exercise periods, as this contributes to class spirit and to the dignifying of the work. It is a good plan also to have the rank in leadership indicated by some distinguishing mark, such as the wearing of letters, stripes, monograms, or other suitable emblems.

The matter of control presents no difficulty to the thoroly trained director who is absolutely fair and sincere in his dealings with students. The work should be so conducted as to give the future teachers a disciplinary training, but the discipline must not be so rigid as to drive out all spontaneity. As far as possible, self-government should be encouraged and employed, but in all cases the director must be the final authority on all matters relating to his department.

Some work in physical training should be compulsory on every student, but it is the director's place so to interest the student in his own welfare, and so to select and conduct the work, as to relegate the obligatory feature to the background.

Physical training in normal schools presents an attractive and growing field, and the above suggestions—a result of three years' experience—are offered in the hope that they will assist some fellow-director to a more complete and efficient service, or at least call forth a discussion that will do so.

OBJECTS AND METHODS OF PHYSICAL TRAINING IN COLLEGES AND UNIVERSITIES

R. H. JESSE, PRESIDENT OF THE UNIVERSITY OF MISSOURI, COLUMBIA, MO.

Nothing induced me to write a paper on this subject except the assurance of Dr. E. H. Arnold that he wished one paper from a layman. Experience in this matter I surely have had, but it has been the experience of a college president, solicitous about the results of physical training as shown in morals, college spirit, and health. Of the objects and methods of physical training, except as they manifest themselves in these three things, I know little.

All discussion of whether a college or a university should or should not concern itself officially about athletics may be avoided by saying that students of higher learning are in athletics to stay. No good institution known to me could possibly get its students out. Athletics, with tremendous power to affect health, morals, and college spirit, are unavoidable. If the institution controls athletics wisely, the result is most beneficial; whereas they generally become a source of moral degradation where they are left mainly to students or to alumni. Some institutions allow the students to manage athletics, holding that this is good education. Why might it not be good education to allow them to manage

the whole institution? It is for their good that athletics should be managed in the best way, and the best management can never be secured so long as it is mainly in the hands of students. I have tried both systems of control, with disastrous consequences in the one case, and in the other with admirable results. Will you allow me to give some personal experience, not out of desire to talk about myself or my own university, but because in this way I can set forth my views best?

In former days my own university employed a director of the gymnasium, who had nothing to do with football, baseball, track athletics, tennis, basket-ball, or golf, except as a friend. Football particularly was managed by the students, the alumni, and the devotees of the town. The chief object was to have a winning team—fairly if possible, but at all hazards a winning team. When certain men pleaded for honesty, some of the promoters broke into assurances that our methods were clean, and others, pricked by conscience, declared that we were as honest as our antagonists were, and that it was stupid to send out immaculate teams against those that were maculate. "We must fight the devil with fire," was the end of all argument. It was idle to say that the cross was a better instrument of fight against the evil one. What was the President doing? He and many of his colleagues were doing all that could be done under the circumstances in behalf of clean sport. Many devices were used to keep the President in the dark about the true character of the players. The following spring many things would leak out when there was no chance for remedy. Let one instance suffice. A giant, greater of stature than Goliath of Gath, was brought into my university early one fall. Suspecting something evil, I sent for him. "Are you coming here," said I, "to play football or to be a student?" With a pained expression he said: "I am coming, Mr. President, to be a student, but incidentally I hope to play some football." "Do you expect to remain during the entire session?" said I. "Yes, sir," said he, "if God wills and my means hold out. I have been selling books for the Y. M. C. A. as a means of livelihood and in the hope of doing good. Unless money fails me, I expect to stay during the entire session." "Do you expect," said I, "to attend lectures regularly and to study diligently?" "I do most assuredly," he replied. With some mortification I apologized for asking these questions and welcomed him to the university. He played until the Thanksgiving game, but after that he never appeared again on the campus. The following spring it leaked out that he agreed to play football during the fall if the men about town would buy as many copies of the religious book which he was selling as he could dispose of were he to continue to work as colporteur. What the book was I forget, but let us name it *Baxter's Call to the Unconverted*. The number of copies to be purchased was finally settled at one hundred and forty. This pious transaction closed, he played football grandly and at the same time disreputably. What became of the books I do not know.

The adventitious coach, employed by the students and the devotees of the town, would sail in upon us in early September, the university having had

nothing to do with the naming of him. He exercised an influence greater than that of any other man on the campus. No adequate inquiry as to his character had been made. His power to train for victory alone had been considered. Sometimes he made the field sulphurous with swearing. Sometimes, while restraining the players during practice, he would himself frequent bar-rooms. Facing no responsibility, he would encourage the men sometimes to violate faculty rules pertaining to absence and other things. Then the plea would be made that the boys had violated rules under the direction of the coach, whom they were bound to obey, and that the coach only should be responsible. There were no means by which he could face responsibility before the President and faculty. One or two coaches were reputable gentlemen, but most of them were in one way or another disreputable. When the last game was over, the players and the coach generally went off skylarking together to celebrate victory or to get comfort under defeat. Moreover, the teams went thousands of dollars into debt, and complaints would often come from hotels and railroads of disorderly conduct and a tendency to take "souvenirs." Debt without prospect of payment, disorderly conduct as the teams traveled, professionalism, lying about the players, athletics for victory only, formed elements of debauchery that made university education seem to honorable men a failure. How could honesty be secured on daily recitations and in examinations when dishonesty was practiced in every match game? How could thieving be suppressed when our athletes took as "souvenirs" whatever they pleased from hotel or railroad car or visiting team? How could students be compelled to pay their honest obligations when the football association was plunging hopelessly into debt? How could swearing, lechery, and drinking be discountenanced when the all-powerful coach was sometimes setting an example in these directions? To suppress athletics, even if we had been willing to do it, was impossible. In no state will the statutes allow the authorities of a college or university to rob students of their rights as citizens without sufficient reason. It could not be shown that these lapses from good morals were inseparable from athletics. The courts would have held that it was the business of the university to suppress immorality, leaving the students free in their exercises. The only way was to put athletics under the control of the university, even if it involved expense. The question was not what athletics were worth in money, but what it was worth to suppress debauchery of students. You see that I came to a conclusion like a layman and not like an athlete.

Dismissing for good cause the director of the gymnasium, we put all forms of physical exercise, from croquet and tennis up thru football, baseball, track work, and finally thru the gymnasium, under the direction of one man, who was responsible for his acts to the President and the trustees. We tried hard to get a man who had not only some knowledge of athletics in all forms, but who had the character, intellect, and education of a gentleman and a scholar. An athlete without university education or without the highest ethical standards should not be considered for a moment in a university. We were fortunate

in securing Professor C. W. Hetherington. The coaches now are appointed by him. They come as assistants to him. They are liable to discharge at his hands in the heighth of the season. They walk the straight and narrow way while they are training our teams. The large debt overhanging the athletic association was discharged honorably in the course of three or four years. Professionalism, soon banished, has remained in banishment. A spirit of fairness, honor, courtesy, uprightness, moderation in victory, constancy under defeat, politeness to visiting players, propriety when traveling, has taken possession of the teams and the students who foster them. Out of enthusiasm for athletics the best form of college spirit is coming. In proportion to its size and its means, the University of Missouri is paying more money for athletics than any other university in the Mississippi Valley. We are not paying more than is necessary. As President, I am not called upon to ask whether athletics are worth the outlay. They are inevitable. If not properly regulated, they become a source of degradation; but if properly regulated, they become a means of grace. How much is it worth to turn a source of debauchery into a nursery of devotion to the institution, of college spirit and college pride, fortitude under defeat, generosity to the vanquished, chastity among men, self-restraint in food and drink, bodily cleanliness, dignified propriety abroad, and self-control under provoking circumstances? In my opinion it is worth all that it is costing us—and it is costing a large sum.

The interest of the students is necessary to the maintenance of athletics. This interest cannot be engendered if they do not have something to say about the management. Our students are consulted individually and *en masse* about many questions. They are allowed to control things that they can control without too great danger. The director is not dictator except in things that cannot safely be released from his grasp, and even in these things he often follows wisely the policy of the Roman Augustus.

No reason appears to me why a college or university should not have one man in charge of all forms of athletics and all gymnasium exercises. If the institution be small, he must be sustained with such assistance as the treasury permits; but in the case of large institutions he ought to have a second in command who is expert in athletic sports, and another second in command, so to speak, who is expert in gymnasium work. I am advocating first a director, then under him a first assistant in charge of athletics, and another first assistant in charge of the gymnasium, these assistants to be co-ordinate in rank and both responsible to the director. This much expense, at least, any large institution ought to be willing to pay out of its own treasury. The adventitious coach, even if, as with us, he comes as assistant to the director and acts under his control, ought to be got rid of. It is better to let the athletic association bear the expense of a large number of alumni coaches who accept nothing more than railroad expenses, board, and a modest honorarium for incidentals. I am supposing, of course, that the director is supplied with a stenographer at the expense of the institution. Where the enrolment is large he must have more than one assistant in the gymnasium. But this is a detail.

Should the director be expert primarily in gymnasium work or in athletics? I should look for the right man first regardless of these considerations, but, other things being equal, I should get an expert in gymnasium work. On no account should I employ him, however, if he did not take an interest keen and intelligent in all forms of physical exercise.

Even when regulated as described above, athletics may become a source of extravagance. It is bad education to allow students to waste money, even tho it be in things that in themselves are innocent. The director ought to have, directly or thru his influence, power to regulate expenditures. The enormous sums of money that come to athletic teams should be wisely administered and the surplus invested in good securities. When it reaches a certain sum, it might be used for a building, or for additional fields, or for the endowment of a chair. To waste it is iniquitous.

No college or university known to me is adequately equipped with athletic fields and provisions for outdoor exercises. The gymnasium, however sumptuous, is a place for exercise when the weather does not permit of training out of doors. It is a sin to let a man take his exercise in a gymnasium when the weather permits him to take it out of doors. Near the building should be an outdoor gymnasium equipped with all forms of apparatus which can be safely exposed to the weather. Some things can be transferred from the indoor to the outdoor gymnasium and back again. It would not take much mechanical skill so to modify many pieces of apparatus that they could be easily transferred from place to place. Many institutions boast of immense sums invested in a gymnasium without letting you know how much ground there is for outdoor exercises, nor how convenient that ground is to the building. Each of the four classes in the college or university should have a field of its own for baseball, football, and track athletics. If there is a graduate school, that should have a fifth field. Then there should be the "'varsity field," on which interclass and intercollegiate contests should be held and on which the 'varsity team should practice. Five fields seem to me a minimum; and if there is a graduate school, there should be six. Ample space should be reserved for hockey, handball, tennis, and golf. Thus in football, baseball, basket-ball, tennis, and so on, there should be the first and second 'varsity, the first and second graduate teams, and a first and second team for each of the classes. Allowing in football twenty-eight men, including substitutes for each team, there ought to be about 170 playing football seriously, and between 140 and 150 men playing baseball. The numbers will be increased if you remember that many will try for places on the class teams and fail. So also for track teams, tennis, basket-ball, hockey, boating, and so on. In some universities, fraternities in combination might put up a team or two. These interclass contests add greatly to college spirit. Every student of respectable strength ought to have a chance to win a place on some reputable team.

To a layman it seems queer that a large college or university should put all forms of gymnasium and athletic exercises in a single building. Why not

rather erect a quadrangle of smaller buildings, communicating thru colonnades or covered passages, and inclosing an outdoor gymnasium, shaded and sheltered from the wind? Athletic courts might surround the quadrangle outside the buildings, and then might come a series of half a dozen fields—the tennis courts, the outdoor courts for handball, the golf grounds, and so on. To attempt to put all forms of indoor athletic and gymnasium work into a single building is as difficult and as unreasonable as to put all forms of science under a single roof.

Writing from the point of view of the layman and the administrator, I have purposely abstained from pleading for athletics from many points of view from which admirable pleas might be made. I feel some hesitation in giving so much of personal experience in the University of Missouri, but solely for the purpose of setting forth better the views to which they have led me have these experiences been described.

OBJECTS AND METHODS OF PHYSICAL TRAINING IN HIGH SCHOOLS—FROM THE STANDPOINT OF THE SPECIALIST

MRS. MARY H. LUDLUM, INSTRUCTOR IN PHYSICAL CULTURE, CENTRAL HIGH SCHOOL, ST. LOUIS, MO.

We are asked to speak of physical training from the standpoint of the specialist. We have never thought of ourselves as a specialist but only as the teacher who loved this special work, hoping that we might impart to the pupils under our charge the spirit that would wake them up to the needs of the body, to perfect it, both in its outward contour and in its ability to resist the wear and tear which come to it—to fit our young people for the work of life.

We will speak for the girls of our high school, as we have nothing to do with the boys' work.

When the young girl enters the high school, she has taken a long step, not only in her school relations, but also in her girlhood. We begin to look upon her now as a young woman in the broadest sense of the word, and we are afraid, with the putting on of the title, many of us expect too much. Would that we could still keep them as children in some things! The young girl comes from the school, where she entered as a little child, at the age of twelve or fourteen years. What a great change! For each year in the grammar school she has had, in many cases, but one teacher—has had time and opportunity to know the teacher to whom she is to go during the next year. She has had the same associates nearly all the time, has had her morning recess, her ten- or fifteen-minute physical exercises every day, her noon hour when she walks briskly home to her lunch and back again for the afternoon work.

So far she is used to exercise. She plays with her brothers and the neighbor's boys. The speaker well remembers when she made one of the "nine" having four brothers and four boy cousins to play with.

But now comes a great change, both in herself and in her school life. The girl must stay indoors. Her daily exercise, the walk to and from school, perhaps, in this day of luxury, *that* is often omitted because the electric car brings her almost to the school door. The music lesson must be taken, and hours of practice given to it. Parties—at the beginning they are only every two or three weeks, but as the acquaintance grows they come more frequently—the Saturday matinee, and many other diversions with which we are all familiar consume much time and strength.

In the large building, where now she is under the guidance of some five or six different teachers during the day—the members of her class, strangers to her—what a nervous tension she is under until she adjusts herself to the new environment! When she enters the building in the morning she goes to her study-room, gets the books needed for the morning hours, carries them upon the hip (I playfully say: "If the left hip is the bookshelf today, please change to the right tomorrow!"), and does not return until twelve o'clock, lunch hour, when she sits at her desk and eats the lunch brought from home, or goes to the lunchroom where she gets good wholesome food. (How we all rejoice at the fact that nearly every high school has its dining-hall and is under the supervision of one who knows what to give!) Then, a stroll, in the corridor on the same floor as her home-room, for about ten minutes; and at the ringing of the bell she returns to the room, and the routine of the morning is repeated—five times a week, forty weeks in the school year. No playground as in the grammar school; no daily systematic exercise. Is there any good reason why the girl should give up exercise? The boy does not at that age, even if, unfortunately, he has to become a bread-winner. Do we not see him in the street or in the adjoining lot, if there is such a blessing near him, playing hand-ball with his companions? Are there not great changes in the lungs, heart, circulation, etc., at that age, and do we not know that these changes are stimulated by exercise?

Let me quote from Dr. E. M. Hartwell. In a paper on "Physical Training, Its Place in Education," he divides the time from babyhood to the twenty-fifth year into three periods, saying that growth and development proceed during each period, but growth predominates in the first and second, and development in the third, period:

> First period: from birth till the close of the eighth year. The whole body grows rapidly in the first two years of life, but in this period the growth of the brain, which attains its full weight within a few ounces in the eighth, is most marked.
>
> Second period: from the beginning of the ninth to the end of the sixteenth year. This is distinctively the period of most rapid growth in height and weight. In increase of weight the muscles play the leading part.
>
> Third period: from the beginning of the seventeenth to the close of the twenty-fourth year. This, the period of established adolescence, is distinctively a period of development of character as well as of bodily and mental faculty.

In the second period the individual diverges from the mental condition of childhood and takes on the distinctive characteristics of youth and maiden. The changes in body, mind, and character are profound and lasting. Self-consciousness is awakened, self-confidence is quickened, and new impulses, appetencies, and ambitions arise, which prompt the adolescent to try all things and everybody.

The child yields to authority and accepts dicta with comparatively good grace; but the youth demands reasons and must be convinced, or at least persuaded, by his teachers and governors. He may be led, but he resists being driven. Educational methods, therefore, particularly during the second half of this period, should savor more of incitement than compulsion. The formal education of the great majority of public-school pupils terminates in this period, since so soon as they are fairly well grown their services become marketable. Those who are destined to the ruder forms of labor or the humbler crafts and occupations enter the lowest ranks of wage-earners, while as yet the privileged youth selected by their parents or by circumstances to engage in pursuits which demand special aptitudes or technical training are too undeveloped, in many instances, to make rational choice of a vocation, and much less to engage in professional pursuits or the higher crafts.

On the whole, since the period of most active growth appears to be followed by one of comparative exhaustion, when the organism is peculiarly susceptible to disturbing and deterrent influences, the second may be considered, from the hygienic standpoint, as the most critical of our three periods. Exhausting constitutional disease, excessive mental or bodily exertion, underfeeding, ill-judged deprivation of muscular exercise, may readily lead to irremediable stunting or enfeeblement, especially in those who are city-born and city-bred. If physical education be neglected or misdirected during this period, if it be deferred to a more convenient season, it cannot accomplish its perfect work, either as regards the promotion of health or the development of the motor powers of the brain.

The main general departments of physical education should be systematically availed of; i. e., both gymnastic training and athletic pastimes should be given a prominent place in the school curriculum, and the forms of exercise selected should be more varied, complicated and difficult than those employed in the previous period. But the time for engaging in feats or contests that demand extraordinary strength, endurance, or skill, is not yet.

Surely we have shown good reasons for the need of a gymnasium in every high school. Would that every school could have one, or a special room for this special work, where the pupils ought to go for a lesson every day, say fifteen or sixteen minutes, and certainly not less than three times a week and no less than a thirty-minute lesson! If the work is done in the grammar school ten minutes a day by the teacher of the room under the guidance of the supervisor, from the first grade thru the eighth, are not the pupils ready to go into the gymnasium and show an advance in the work? To do the greatest good, the work must begin early and continue regularly thru each year, thus giving a continuity to what has gone before, and at the same time adding beneficial effects for both mind and body. The work must be both educative and recreative. Each pupil should have a thoro examination by a physician—not the family physician, who can be easily coaxed into writing an excuse from the work.

Tests and measurements should be taken twice a year and the record kept; the first time to show the standing at the beginning of the term; the second time to show improvement made by the work. If there is no improvement, the reason should be sought. In this way we can get the pupils interested in self and so in the work. The healthy ones should go on in the general classes;

the weak ones, or rather the ones not up to the average, should be given special attention, even if that were to be done outside of school hours.

We would have the classes, if possible, of uniform size, so that all might be able to do work during the period, and that the teacher might give to each pupil the attention necessary.

The classes should be graded as in the other work. Personally we would prefer to keep the pupils of the same grade together, as we believe in encouraging class pride. The pupils should be marked in this work as in other studies. When thus brought to the same plane with the other work in the curriculum, we shall find an interest awakened, a delight in the work by the majority; and the hour of exercise will be hailed with greater joy than it now is. The pupil must be taught that it is not for fun, but for the lasting good, that the training is given.

We would have the costume suitable for the work, for we find the exercises that may have no attractions in the class-room become interesting in a special room, and still more so in a special dress. It is unnecessary to mention, to the body of educators before me, the kinds of exercises given in the gymnasium: the free movements, the different drills, dumb-bells, bar-bell, club, wands, fencing, the apparatus work, the figure marching and running, the handball, the many games, etc., and dancing.

I have talked thus far on gymnasium work—to the speaker an ideal—hoping and praying the time is not far distant when it will be real. At the beginning of the paper we said we would speak of the work with the girls as we have had them in the Central High School for some time. Before we moved from our former building to the present one, a little over ten years ago, we were promised a gymnasium, but alas, it is still a dream. We had the seniors and the normal-school pupils under our charge. Then we asked for the third-year pupils, and they were given to us; but not until January, 1903, after much importuning, were all the girls given to us. We kept asking the question constantly: "Why are the girls who need the work most deprived of it?" At the very age when they needed the constant watching they were without the physical training for two years or more. They forgot the work that was done in the grammar school, and it was hard for both pupil and teacher to begin all over again. But now they come direct to us from the teacher who has given them the ten-minute exercise daily; and what a marked difference there is in the pupils of today, as far as position, alertness, attention, etc., are concerned, from the ones who had forgotten these exercises—thus proving, as we said before, that there should be continuity in the work.

We have a four-year course in our school—juniors and advanced juniors, seconds and advanced seconds, with the same in the third and senior years, thus making eight grades of work. We have between twelve and fourteen hundred girls—thirty-three lesson periods a week. We make a great effort to keep pupils of the same grade together. Our classes range from seventy-five to twenty-five, altho during the last term we had one or two very small

classes. We exercise in the largest room in the building on the ground floor, a room fifty-three by thirty-eight feet, with double rows of desks and a seating capacity of one hundred and seventy-five. Our aisles are thirty-two inches wide. In one corner of the room we have a box for our dumb-bells and another for wands. Thus you see our limitations as far as room and apparatus are concerned. Our lesson periods are about forty-three minutes. We give about fifteen minutes' work in free movements—arms, feet, head, and trunk; then several minutes to walking; then dumb-bells or wand-work. We pay strict attention to the proper carriage of the body and breathing; we tell them now and then the reasons for the work; we talk on hygiene, ventilation, etc. At the close of the lesson I let them have a talking recess—the "let go" of the hour; and truly it is such. We have but one lesson a week for each class. Do you wonder why we want a gymnasium?

We have some girls who do not care for the work, and the question we ask ourselves is: How can we wake them up to the needs of better health and better living? We do not give many drills, especially in the first and second years. We give most of the work by dictation, and some by imitation. We find that in drill work they give a higher degree of attention, thus tiring quicker; and until it becomes almost automatic by constant repetition, we find that, by giving such strict attention to the order of exercise, they lose on the detail.

We must ever keep in mind that we are working for the harmonious development of the body; and the connection between the body and the mind is so close that the working of every muscle of the body must leave some trace on the mind.

Each lesson in physical training should demand quick response—not *any* time, but *now*—grace of movement, and uniformity. There must be enthusiasm with a definite purpose.

All women should be taught the value, use, and abuse of physical work. Growing children need and must have constant change. Nature demands it for them, and we know that nature is controlled by being obeyed. We hear of women failing in health when undergoing great mental strain—not because mentally incapable, but because too much pressure has been put upon them during their growing years.

Let the girls of our day know that mental education can be successfully carried on only with a thoro physical education; and as the number of women bread-winners is growing, let them learn that they need more muscle, and with muscular power they will gain steadier nerves and greater brain-power.

We hail with joy the fact that the colleges and universities are demanding physical examinations, as well as intellectual ones, from those who are applying for admissions.

In closing, I wish to say a word in favor of basket-ball and other sports for the girls. Basket-ball is a game that requires hardihood, alertness, quick-perception, and volition. I would advise no girl to join a team until she has had an examination by a physician. The organ that seems to be most affected

is the heart. There is no game that demands more varied and constant muscular exertion. The muscles of the back, the arms, and the legs are in constant motion. There is a great deal of nervous tension expended. It not merely trains in fearlessness, fortitude, and endurance, but in "fair play" and in generous approbation for anothers' success; for it is not the success of self, but of the team. And by such games and sports we are raising the moral forces as well as the physical and mental.

PHYSICAL TRAINING EXHIBITS IN THE PHYSICAL TRAINING DEPARTMENT OF THE EXPOSITION

MISS ELSA POHL, PHYSICAL DIRECTOR, GIRLS GYMNASIUM, MCKINLEY HIGH SCHOOL, ST. LOUIS, MO.

In viewing this grand exposition of arts, crafts, and manufacture, we are happy to note the giant strides education has made in the nineteenth century, and especially in physical training, which has received widespread recognition from educators all over the world.

Here we are shown the application of gymnastics to the normal child, the feeble-minded, the insane, and the incorrigible, and are familiarized with the new inventions and devices which stand for progress.

These exhibits are found in three different departments of the exposition, viz., Physical Culture Hall, and The Model Playground and the Educational Building; with the former of which this paper will deal.

Physical Culture Hall is situated at the extreme west of the exposition grounds, fronting east. This beautiful granite structure is the gift of the Louisiana Purchase Exposition Company to Washington University as a compensation for the use of the buildings of the university during the World's Fair period. The first floor of this building contains the office, gymnasium, locker-rooms, and shower baths. The two upper floors are at present devoted to exhibits, the trophy-room being situated above the main hall. The exhibits here found relate to physical training as taught in the schools, colleges, universities, normal schools, athletic clubs, Young Men's Christian Associations, and turner societies of this country.

We will now endeavor to locate these exhibits separately. On the second floor in the hall will be found the exhibits of Chicago's high and normal schools. In this exhibit interesting and instructive charts are found showing the course of individual power during the day, according to which the daily lessons should be gauged, in order to tax the child from hour to hour in proportion to his or her power only; others showing extremes of strength, of endurance, growth in height, etc. We find all the high schools equipped with gymnasiums varying from sixty-four to one hundred feet in length, from thirty-two to seventy-three feet in breadth, and from twenty-one to thirty-five feet in height. Students of the normal school receive part of their practical

training by teaching in the grade schools. Here we have a valuable suggestion in the introduction of portable apparatus in the schoolroom and corridor; for example, one room has the free space next to the teacher's desk fitted out with a vaulting bench, two oblique and one horizontal ladders, while a corridor shows two perpendicular ladders fastened to opposite walls and supporting a weighted horizontal ladder, showing the growing appreciation for apparatus work in the grade schools.

Turning to the right, we enter a room devoted to the Michigan State Normal College, the Young Men's Christian Association Institute and Training School at Lake Geneva and Chicago, Philadelphia Normal School of Physical Training, New Haven Normal School of Gymnastics, Oberlin Teacher's College for Physical Training, and the Posse Normal School of Gymnastics.

The first of these, the Michigan State Normal College, makes a very interesting exhibit of the pantograph, an instrument used for tracing the outline of the body and at the same time recording it upon a chart. These measurements are taken of the pupils at the beginning of the year, and again after nine months of physical training. The results are remarkable, showing great improvement in protruding shoulder blades and in the depth of chest.

Next to this is located the Young Men's Christian Association Training School at Lake Geneva and Chicago, which shows many photographs and prospectuses of the work done.

Following this exhibit is that of the Philadelphia Normal School of Physical Training, having its home in Temple College. This shows the exterior of the college and a portrait of President Conwell, synopses of instruction, and a fac-simile of a diploma awarded for successfully completing a course in physical training.

Near is found the exhibit of the New Haven Normal School of Gymnastics, which is very comprehensive. There are two portfolios illustrating by photograph and manuscript the work of the students. Among the outdoor exercises may be mentioned: field hockey, golf, tennis, and cross-country walks. There will also be found books on gymnastic subjects—the work of members of the faculty; theses and reports on school visiting by the pupils.

Since we are in the midst of a campaign against the present-day shoe and its evil tendencies, Oberlin's exhibit will be of special interest. Here are compared by photograph the shoe-wearing and non-shoe-wearing races. A group of Gilbert Islanders shows the straight inner line and wide space between the great and second toes, while the others show an outward angle of the great toe and tendency to flat-foot.

The next wall is devoted to the Posse Normal School of Gymnastics. A portrait of the late Baron Nils Posse occupies the center space, while around it are arranged photographs of office, library, lecture-, and massage-rooms. Classes in club-swinging and æsthetic dancing are also shown, as well as beautiful drawings of the brain and circulation—the work of the students.

On the immediate right, as we leave this room, will be found the exhibit of

the Cincinnati public schools. Types of calisthenics in each grade are shown in the schoolroom and out of doors, when weather permits, thus illustrating the greater freedom attained with plenty of space. Other photographs show the eighth grades of the Norwood, O., grammar schools equipped with gymnasiums.

From this hall we enter the gallery of the university gymnasium. The first exhibit on the right is that of Amherst College, Mass. Their first gymnasium, called Barrett Gymnasium, was built in 1859, and has since been replaced by a very much larger and more elaborate one, the gift of a Mr. Pratt, in 1884. From an interesting table we learn that as far back as 1860 gymnastics were made compulsory; eighteen years later Blake Field was purchased for athletics; in 1900 pupils were given credit on their diplomas for work in this branch; and in 1903 the Hitchcock post-graduate fellowship was established.

Instructive charts relative to the health of the students are shown. Quoting these, the average time lost per student thru sickness, as shown by statistics of twenty-five years is 84.4 per cent.; the gain of health during college course: seniors, 94.4; juniors, 93; sophomores, 89.2; and freshmen, 87.2 per cent. This health record furnishes one of the strongest pleas for physical training in our schools and colleges.

Next comes the University of Wisconsin, showing the women's gymnasium, the basket-ball team, the swimming class and crew; also men in like work. The most instructive part of this exhibit will be found in two charts illustrating curvatures.

In the extreme corner we find a depressing, tho interesting, exhibit of the anthropometric screen and the deformities it brings to light. The work is that of Mrs. Anna Barr Clapp, of the University of Nebraska, and is completed by a table showing the relative measurements of the eastern and western college girl.

Passing on, the exhibits of Bowdoin College are reached. Photographs of the present and proposed gymnasiums, locker-room, and classes in club-swinging, boxing, and fencing are shown.

In the windows are hung transparencies of Rutgers College and the University of Pennsylvania.

Just beyond the window, New Mexico exhibits outdoor basket-ball for women and football for men.

The entrance to the exhibit of McGill University of Canada is marked by two bronze statues, one representing an athlete, the other a sprinter. On the left side of the screen devoted to this exhibit will be found Dr. R. Tait McKenzie's interesting and novel plaster masks illustrating the facial expression of effort, breathlessness, fatigue, and exhaustion.

From this exhibit we approach the University of Minnesota. A ground plan of the gymnasium shows three rooms devoted to this purpose, a women's apparatus room, a similar room for men, and a large general drill-room.

Smith College comes next with an extensive and beautiful exhibit. The gymnasium is large, well lighted, and devoted entirely to Swedish gymnastics, which is compulsory. Fencing and æsthetic work are given prominent places in the curriculum, which also embraces outdoor sports, such as basket-ball and hockey, for which the environs are admirably suited.

Immediately next Wellesley College has her exhibit, which is also Swedish in character. Here crew work is included in the course.

The last exhibit in this room is devoted to the men's department of Oberlin.

Crossing the hall, we enter the room devoted to the North American Turners' Association. The first object that meets the eye is a model gymnasium in miniature, exhibited by the North American Gymnastic Union. On the walls of the room are arranged artistic groupings representative of the work done by these societies. To the turners and a few equally well-trained and enthusiastic Swedes is due the introduction and spread of gymnastics in this country, and we must look upon them as the pioneers in this work.

In a small room opening off this one is found the Brazilian exhibit. The favorite form of physical exercise with the Brazilians is bicycling, and the walls are covered with pictures of champions of this art and parties about to start on tours. There is shown a model bicycle track, built much like a race-track. Even in this far-away country the turners have made their way and have established many rowing clubs.

Recrossing the former room and entering the hall on the right, we find successively Missouri University; Indian Industrial School, Carlisle, Pa.; Phillips Exeter Academy, and Culver Military Academy.

In the exhibit of Phillips Exeter Academy we see a gymnasium appropriately decorated with statues typifying athletic victories.

Culver Military Academy has an artistic exhibit illustrating field gymnastics, setting up drills, wall-scaling. and hurdling on horseback.

On the third floor we enter the realm of the Young Men's Christian Association. The first exhibit on the left is devoted to the Buffalo Central Association, which gives over one-third of its entire building to the gymnasium and the swimming-pool.

Cincinnati follows this, and Dayton, O., shows a plan of its athletic park covering six acres. Besides the usual groups are found outdoor fencing, and tub-racing in the natatorium.

The last display in this room is that of Seattle, Wash.

The trophy-room contains two bronzes deserving of mention; one, the Dodge trophy, representing three runners, awarded the basket-ball championship in the New York high schools; the other, "The Wrestlers," presented by Mr. Pratt to the elementary school holding similar championship.

On one wall are hung two very old banners, won by an Amherst crew in 1872.

In conclusion, we hope this paper has been of sufficient interest to insure a closer inspection of the exhibits and a greater appreciation of their value in education.

PHYSICAL TRAINING EXHIBITS IN THE EDUCATION BUILDING OF THE EXPOSITION

MISS MARY IDA MANN, INSTRUCTOR IN WOMEN'S GYMNASIUM, UNIVERSITY OF MISSOURI, COLUMBIA, MO.

When the principles of Ling and Father Jahn were first brought across the water, their most optimistic advocates failed to anticipate results which less than half a century has produced.

Evidences of these results form a considerable portion of the display in the Education Building of the Universal Exposition. They consist largely of photographs, and are found among the exhibits in the following sections: Elementary and Secondary Schools; American Universities; American Colleges; Foreign Countries; Hygiene; Social Economy; Charities and Corrections; and School Publications.

These displays suggest the geographic direction of growth of our gymnastic activity. This growth has been, with the exception of lines from a few Middle West cities which have acted as radiating centers, from the east westward.

It is then no surprise that cabinets from eastern states indicate that their normal schools, private schools, and public schools are, as a rule, as well or better provided with gymnasia, instructors, and athletic facilities as many of the highest institutions of learning in the West.

Thirty-one states send exhibits. Some provide special cabinets for physical training, while others place the athletic and gymnastic displays in the cabinets of individual schools. From the mass of material thus provided for inspection the endless array of basket-ball and football exhibits first impress the observer. He will also be interested in views of baseball and track work, cross-country runs, skating, walking, tennis, boxing, fencing, and military drill; by classes in gymnasia, corridors, schoolrooms, and the open; and by such accessories as fine gymnasia, bleachers, athletic fields, pools, baths, and trophies.

On account of the short time allotted for this paper, and of this similarity of all exhibits, it is advisable to mention only those features which are peculiarly suggestive.

From New England, the Massachusetts exhibit is especially valuable to those interested in Swedish gymnastics. Boston shows fine high-school gymnasia, with girls and boys in regulation costume, and chapels, corridors, and schoolrooms utilized where a gymnasium is not provided. The gymnasia show the correct arrangement of Swedish apparatus, and the schoolrooms suggest the use of desks and seats in its absence. The students of the normal school at Hyannis are given a course in first aid to the wounded, with practicing in bandaging, etc.

New York's most comprehensive exhibit is from New York city. Among the photographs of classes is one of class wrestling, and among those of equipment are swimming-tanks and shower baths. Charts outline the work in

physical training, the organization of the athletic league, and the care given to atypical children. The outline states that the principle of selection is with reference to the effect upon the correction of posture and the stimulation of main physical functions. A two-minute setting-up drill is added twice in the morning and once in the afternoon. Heavy equipment is used only after school hours. The Athletic League, officially independent of the board of education, confines its activities to out-of-school hours. The care of atypical children includes two physical examinations a year, much exercise in the sun, daily baths, plain lunch at school, and frequent rests.

Pennsylvania sends a most interesting exhibit of rules and models for a game called "Snow Snake," from the Corn Planter Indians of the Indian School at Warren. The Bloomsburg Normal School proves the success of the plan of including contesting individuals, teams, and classes in the program of the annual exhibition.

Cleveland's exhibit shows the Swedish system with seats and desks used for support, vaulting, and resistance.

From Illinois, Chicago outlines the results of investigations in growth, motor defects, etc. In addition, there are views of class fencing and preliminary indoor lessons in hockey. No gymnasium is less than sixty-four feet in length, thirty-two feet in breadth, and twenty-one feet in height. For schoolroom work a piece of portable apparatus has been invented by means of which a single piece of apparatus on rollers, by various attachments becomes a sort of multiple horse (called "handle horse"), changeable into parallel bars, one or more of the several horizontal bars, and ladders both horizontal and oblique.

Views from Peoria suggest methods of disposing of hand apparatus in corridors. In the yard of an eighth-grade school a class of boys and girls do exercises of balancing and vaulting over a large supported log. This exhibit closes with a mass drill of all public-school children in a gymnastic field exhibition.

In Indianapolis the grade buildings are being fitted as fast as possible with gymnasia. The neighboring city of Crawfordsville, which is without a gymnasium, sends her high-school girls, chaperoned by the lady principal, to a hall fitted for the purpose, where they are instructed by the Y. M. C. A. director, while the boys are sent to the Y. M. C. A. gymnasium.

Wisconsin, as well as the previously mentioned states, indicates widespread interest in physical training. River Falls shows the girls in suits with pointed belts. This is the only exhibit showing any variation from the round belt. From the State School for the Blind a class is shown just starting on an outdoor run, the line connected and guided by a rope.

All new buildings in Minneapolis are now being built with wide halls for the accommodation of classes in physical training. Views of these corridors show what an inspiration they are.

Seven biogens (or mutoscopes) in the Missouri exhibit represent, as photographs could not, the life, activity, and grace displayed by classes in free-hand

gymnastics from the elementary schools, a high-school basket-ball team and fencing bout, and a gymnastic dancing class from the Kirksville Normal School. From the Manual Training High School of Kansas City the visitor sees a variety of astonishing pyramids posed for by the boys of the gymnasium.

In the extreme west a feature worthy of note is the splendid athletic field provided for the Ogden High School.

The exhibit of the Evangelical Lutherans is most satisfactory, because it indicates a system of compulsory gymnastics which extends through the parochial, college, and training schools, and ends only at the theological seminary

Elaborate displays from the women's colleges represent an expenditure for gymnasia and equipment, and for hockey, boating, golf, tennis, snow-shoeing, basket-ball, and track work which a few years ago would have been deemed most extravagant. Smith College displays views of positions taken by a basket-ball team at various points in the game, and also a picture of the throng awaiting admission to the great inter-class basket-ball game. Six elective and six required courses in gymnastics are announced.

Among American universities Columbia sends statistics proving an almost universal use of the gymnasium.

Charts from Wisconsin make anthropometric comparisons with data from Yale and Cornell. The position of the university on Lake Mendota, as shown by a model of the campus, accounts for our only western boating crew. A complete file of the *Badger* furnishes data concerning Wisconsin meets and records.

Illinois girls play basket-ball, in gymnasium costume, on an outdoor court.

In an album from Missouri is discovered the only exhibit attempting to show in detail the regulation gymnasium suit of an institution.

Michigan's exhibit sets forth the system of class contests and games which arouse such enthusiasm among her students.

Tennis is evidently the most popular sport for both men and women at Tennessee.

The German exhibit is easily understood because of its system and of the outlines, in English, posted for the convenience of the visitor. A model of a combination gymnasium and public library at Charlottenburg, and another of a public-school gymnasium, are exhibited. The latter accommodates about five hundred children who work in sections of between twenty and fifty. Among devices not commonly seen in America are a combination of swinging ropes with a chair at the top of a vertical ladder, leather mats, a truck for carrying mats about the gymnasium, and panels in the side walls which open into receptacles for the hand apparatus, wraps, and the details of the heating and ventilating systems. The work at Quedlinburg is entirely out of doors and, in combination with military maneuvers, consists of climbing in the Hartz mountains. In all schools much attention is given to rowing and swimming. Preparatory swimming movements are practiced by the boys lying face downward on a device similar to a camp stool. All public baths are typified by

those shown from Frankfort. Charts by F. A. Schmidt, of Bonn, outline the influence and results of physical exercise in youth. Other charts give the system of measurements used in determining whether children are ready for higher mental work. The distribution of playgrounds in the main industrial district of Germany is indicated by maps, and a painting reproduces the well-shaded playground at Königsberg. Outdoor gymnasia, baths, military work, camping, and outlines of physical examinations suggest the nature of the work in Eberfeld and other schools of like rank.

The exhibit from the primary schools of England is especially complete. In London each school has an instructor under whom the younger children work in the schoolroom or on the playground, and the older children in a gymnasium. Each district has its pool, and swimming is a part of the curriculum. The preliminary exercises are taught standing and lying on the floor. The course of instruction also includes life-saving drills, and certificates are given to those who can swim twenty yards. Photographs of some of the champions, and a full explanation of the system, make a study of this exhibit most helpful. Outlines of the gymnastic work show that it is based on the Swedish system. Similar work is shown for Leeds and Liverpool. Leeds has ten baths with eleven instructors, and lessons are given from April 20 to September 21. Physical work in Liverpool includes Saturday-afternoon rambles. At present each city outlines its own course, but a committee recently appointed for the purpose of suggesting a uniform course has just completed its report.[1] Among secondary schools for boys, Eton and Rugby show military work, tests in swimming, a meet and games, and suggest the great amount of attention given rowing by schools situated on a river. Secondary schools for girls show lacrosse, cricket in gloves and shin guards, hockey in gymnasium costume, rowing, and gymnasium work. At the universities gymnastic and athletic work is not compulsory, each man being so "keen" for this training that restraint instead is necessary. A Durham football costume differs materially from the padded American armor. Thick boots, short knickerbockers, golf hose, and bicolored shirts with the sleeves rolled up complete the outfit. A woman in the affiliated colleges at Oxford has as recreations hockey, tennis, and rowing.

Photographs from the Royal Institute at Stockholm illustrate the pure Swedish positions, and the use of Swedish apparatus so typically that the pictures themselves could be used as standards for imitation in teaching the system. In addition, there are models of Swedish "playing tools" designed, in size, for children from eight to fifteen years of age. These comprise equipment for a game similar to our basket-ball, altho the ball is smaller; and for another similar to baseball (the bat being wider); and further skees, bowling and other wooden balls, and poles and standards for vaulting.

In fascinating wistaria-hung arbors Japanese children and normal-school girls seem to be happy at gymnastic games. In a girls' high school some are

[1] Eyre & Spottiswoode, E. Harding St., Fleet St., London, E. C. Price, 12 cents and postage.

busy with a lesson in etiquette, and others, with the sleeves of their native costumes tied behind their backs, go thru with exercises which would surely have drawn approval from Delsarte. But progress is evident, for in an up-to-date gymnasium girls in bloomers take their lesson from a teacher from the Boston Normal School of Gymnastics. In several exhibits men are engaged in European gymnastics.

All Chinese classes, including girls in mission schools and men in the outdoor gymnastic work of the military schools, are in native costume.

Brazil sends pictures of military and gymnastic work in tropical yards by men in cool white costumes.

Models of longer clubs and shorter bar-bells than our manufacturers offer find place in the exhibit from Argentine; also children's classes with hand apparatus.

Cuba's exhibit evidences the influence of the teachers trained at the New Paltz (N. Y.) Normal School. In the public schools, work in gymnastics is compulsory from the little thatched country school to the highest school supported by the government, and is general in private schools. Havana, Pinar del Rio, Matanzas, and Santiago show games, light apparatus, croquet, and basket-ball.

Institutions for the deaf and dumb make use of the concentration developed by physical training as an aid in auditory work. American and British prisons and reformatories show compulsory baths, indoor work, and outdoor games as a means of uplifting and reclaiming.

Hospitals and institutions for the insane show field sports and gymnastic classes. Johns Hopkins Hospital exhibits an orthopedic shoe for the correction of flat feet. The Battle Creek (Mich.) Sanitarium shows gymnasium and natatorium, and Swedish mechanical movements. Boards of health exhibit gymnasia and public baths. The Muskoka Lake region shows a camp with a gymnasium for the treatment of pulmonary affections.

With regard to physical training, the Women's Christian Temperance Union has compiled statistics grouping states with compulsory laws. The home economics exhibit indicates, as one line of work of the Association of Collegiate Alumnæ, the study of physical education for girls.

The National Cash Register Manufacturing Co., of Dayton, O., finds it advantageous to maintain an instructor and classes for its employees and their families. Dancing classes for the children are considered as important as gymnastics for the men of the office force.

Of the publishing houses, Silver, Burdett & Co., the American Book Co., and the Milton Bradley Co. offer books upon the subject under discussion.

From this display of physical training several conclusions may be drawn. Physical training is in general use in the United States, from universities and colleges to, and including, primary schools. In institutions of all ranks and for either sex, basket-ball takes the place of systematic training until the equipment for regular work is procured. The uniform presence of football exhibits

would indicate that it is here to stay. The ugly and bungling bloomer costume worn by the strong-minded woman of the past decade has given place to an appropriate and attractive suit, whose general use extends even to outdoor games and contests. Physical training has come to be an essential, not only for the normal, but for the abnormal; not only for development, but for physical, mental, and moral correction.

DEPARTMENT OF SCIENCE EDUCATION

SECRETARY'S MINUTES

FIRST SESSION.—TUESDAY, JUNE 28, 1904

The department met in the reading-room, East Gallery, Transportation Building, and was called to order at 2:30 P. M., by president Wilbur A. Fiske.

A report of the committee appointed at the 1903 meeting, "to request the National Council to consider the advisability of appointing a committee to discuss the subject of physics teaching in high schools which prepare few pupils for college, and to formulate a course of physics for such schools," was made, in the absence of the chairman, by Frank M. Gilley, of Chelsea, Mass. He reported progress, and was instructed by the president to present the matter of the necessary appropriation to the National Council then in session, and to report at the meeting tomorrow.

The following program was then presented:

Topic: "Discussion of Louisiana Purchase Exhibits."

1. "A Comparative Study of the Methods of Science Instruction of the Various Countries as Shown by Their Exhibits," by William J. S. Bryan, principal of Central High School, St. Louis, Mo.

2. "The Nature and Educational Value of the Scientific Exhibits of High Schools and Colleges of the United States," by George Platt Knox, principal of Garfield School, St. Louis, Mo.

3. "Applied Geography, Illustrated from the Louisiana Purchase," by Arthur G. Clement University of the State of New York, Albany, N. Y.

The discussion of these papers was opened by Chester B. Curtis, Central High School, St. Louis, Mo., and was followed by a number of questions which were answered by the speakers.

The following Committee on Nominations was appointed by the president:

E. R. Whitney, of New York. Hubert J. Schmitz, of New York.
Chester B. Curtis, of Missouri.

The department adjourned at 4:15 P. M. to meet Wednesday, June 29, 1904, at 2 P. M.

SECOND SESSION.—WEDNESDAY, JUNE 29

The meeting was called to order at 2:20 P. M. by President Fiske, and the following papers on biological and physical science were presented:

1. "The Microscope in the Biological Laboratory of the High School," by John F. Thompson, instructor in botany. High School, Richmond, Ind.

Discussion led by S. M. Coulter, professor of botany, Washington University, St. Louis, Mo.

2. "The Subject-Matter of High-School Physics," by Arthur L. Foley, professor of physics, State University, Bloomington, Ind.

3. "The Value of Chemistry in Secondary Education," by W. M. Blanchard, professor of chemistry. De Pauw University Greencastle, Ind.

Discussion was led by August F. Foerste, instructor in physics, Steele High School, Dayton, O., and H. A. Senter, head of Chemical Department, Omaha High School, Omaha, Neb., who were followed by E. R. von Nordroff, head of Science Department, Erasmus Hall High School, Brooklyn, N. Y., and several others.

The following papers on science-teaching in general were then read:

1. "The Teaching of the Scientific Method," by S. A. Forbes, dean of University of Illinois, Urbana, Ill.
2. "Nature Study as an Aid to Advanced Work in Science," by E. R. Whitney, instructor in science, High School, Binghampton, New York.

These papers were discussed by Otis Caldwell, professor of biology, Eastern Illinois State Normal School, Charleston, Ill.

The president then called for the report of the Committee on a Physics Course, after which the following motion was made by E. R. von Nordroff that a committee be appointed to investigate the courses in physics, and to report upon any desirable changes in the elementary course, and to suggest a second-year course. The motion was carried, and the president appointed the following committee:

Frank M. Gilley of Massachusetts. Willis E. Tower of Illinois.
E. R. von Nordroff, of New York.

The report of the Committee on Nominations was read and adopted, and the following officers were elected for the ensuing year:

For *President*—Frank M. Gilley, Chelsea, Mass.
For *Vice-President*—Arthur G. Clement, Albany, N. Y.
For *Secretary*—H. A. Senter, Omaha Neb.

The department adjourned at 5:15 P. M.

H. A. SENTER, *Secretary.*

PAPERS AND DISCUSSIONS

A COMPARATIVE STUDY OF THE METHODS OF SCIENCE INSTRUCTION OF THE VARIOUS COUNTRIES, AS SHOWN BY THEIR EXHIBITS

W. J. S. BRYAN, PRINCIPAL, CENTRAL HIGH SCHOOL, ST. LOUIS, MO.

Presumably the thought of those who requested me to prepare a paper on this very extensive topic was to secure a digest, as it were, of the several foreign exhibits in the Educational Building, in so far as they are related to science instruction. At best, it will be possible to do but little more than this in the brief space and with the limited material at my command. The exhibits of the different foreign countries were not prepared with the same object in view, and emphasis is not laid upon the same features. The methods of instruction can be determined only by inference from the work of pupils presented, from the published catalogs, programs, and courses of study of institutions represented, and from the collections of apparatus and illustrative material shown.

Science instruction in actual daily practice affords the most attractive features for the eye of the beholder, but it is the laboratory equipment and the experimental work of the pupil or the skillful demonstration of the teacher that lends especial interest and charm.

The distinctive thought of the Louisiana Purchase Exposition is the display of processes rather than products. If it had been possible for the several coun-

tries to send typical classes of pupils for the exhibition of laboratory science in model laboratories, it would have afforded unprecedented opportunity for observation of methods of instruction which would have been of the greatest interest and value. The interest that would have been aroused by such presentation of actual work in the laboratories of science is shown by the throngs of spectators that surround such displays of processes wherever they are made in the exposition grounds, whether in the Educational Building or elsewhere. It would have been expensive to send classes of pupils, but the outlay would have been returned in the education of pupils sent, and in the stimulus and suggestion afforded the student of educational methods. Moreover, where so much has been expended, evidently not the cost, but the effectiveness of display, was the dominant thought. As it is, however, the photograph is the most effective representation of actual conditions of science work, and is supplemented by the written exercises or examination papers of students, by the programs of daily work and the courses of study pursued, or by the apparatus and illustrative material used. It is to be regretted that the different countries have not all shown all these elements of science instruction, which would have been full of suggestion to the educator. In some of the exhibits one feature is shown; in others, another.

So much by way of suggestion for future educational exhibits and of explanation of conditions that obtain in the present exhibit.

I shall now speak of the exhibit of science instruction made by four of the nations of Europe in the Educational Building. If another nation makes such an exhibit, I have failed to locate it.

The Swedish exhibit is most complete along the lines of drawing, manual training, and domestic science. Of pupils' work in science there are only a few examination papers in bound volumes and a large collection of herbarium specimens prepared by pupils in the course of their study of botany. These collections show the extent of the study of plants, and are evidence of excellence of training and skill in preparation. The photographs exhibited show excellence of equipment in botany, physics, and chemistry, both as to laboratories and apparatus. The practice of going on botanizing expeditions is illustrated by photographs. Some of these journeys occupy from eight to fourteen days. Provision is made by governmental and private railroad lines for greatly reduced rates of travel. Not only botany, but other subjects, such as mining, lumbering, and manufacturing, are studied. Illustrative material for the study of botany, physiology, physics, and chemistry is shown. From the pamphlet prepared for distribution it appears that in the public secondary schools natural history—e. g., zoölogy, botany, physics, astronomy, chemistry, geology—is taught five years, and is followed by physics and chemistry, four years each. Technical education is highly esteemed in Sweden. Higher scientific instruction in technical subjects is given at the Technical High School of Stockholm and the Chalmers' Polytechnical College in Gothenburg. The sciences taught in these schools are

geodesy, topography, mechanics, physics, electrotechnics, and chemistry. In the technical colleges, five in number, there are taught the sciences of mechanics, physics, chemistry, mineralogy, and geognosy. The subjects taught in the lower technical schools vary with the prevalent form of industry of the district in which the school is located. The proportionate number of students of science has rapidly increased since 1875. Then out of every hundred pupils forty-one took the classical course; now sixty-nine out of every hundred take the modern-language course, in which more of science is taught.

France has a very extensive and artistic exhibit of the work done in her schools and higher institutions of learning. It consists of photographs, textbooks, catalogs, charts showing courses of study and classification of schools, pupils' written work collected from a large number of schools and evidently not prepared especially for display, written tests, monographs, and treatises.

In the boys' schools and colleges the sciences are taught in each of the eleven years of the prescribed courses, with one exception: in the eighth year pupils who take Greek do not study science. In each of the two preparatory years one hour a week is given to nature study. In each of the two elementary years one hour a week is given to nature study. In the succeeding four years, which constitute the first cycle, one hour each week for three years is given to the natural sciences by the pupils who study Latin, and by the modern-language division two hours a week, for two years. In the fourth year of the Latin course natural science is omitted. In the third and fourth years of the modern-language course two hours a week are given to physics and chemistry, and in the fourth year an additional hour is given to the natural sciences.

In the first and second years of the succeeding cycle of three years, physics and chemistry are given one hour a week in the Greek and Latin course, and also in the Latin and modern-language course, while in the Latin-science course and the science-modern-language course three hours a week are given to physics and chemistry, and two to practical science and laboratory work. In the last year in the philosophic courses three hours a week are given to physics and chemistry, and two hours to laboratory work, and in the mathematics courses five hours a week are given to physics and chemistry, and two hours to laboratory work. The place of science in these courses of study may be stated as follows:

First year, all pupils, nature study, one hour.
Second year, all pupils, nature study, one hour.
Third year, all pupils, nature study, one hour.
Fourth year, all pupils, nature study, one hour.
Fifth year, Latin-course pupils: natural sciences—zoölogy, one hour.
Fifth year, modern-language pupils: natural sciences—zoölogy, two hours.
Sixth year, Latin-course pupils: natural sciences—botany, one hour.
Sixth year, modern-language pupils: natural sciences—botany and geology, two hours.
Seventh year, Latin pupils: natural sciences—geology, one hour.
Seventh year, modern-language pupils: physics and chemistry, two hours.
Eighth year, Latin pupils: no science.

Eighth year, modern-language pupils: natural sciences—zoölogy, one hour, and physics and chemistry, two hours.

Ninth year, Greek and Latin, or Latin and modern-language pupils: physics, one hour; geology, twelve conferences.

Ninth year, science-course pupils: physics and chemistry, three hours; laboratory work, two hours; geology, twelve conferences.

Tenth year, Greek and Latin, or Latin and modern-language pupils: physics, one hour.

Tenth year, science-course pupils: physics and chemistry, three hours; laboratory work, two hours.

Eleventh year, philosophy students: physics and chemistry, three hours; natural sciences—animal and vegetable anatomy and physiology, two hours; twelve conferences on hygiene.

Eleventh year, mathematics students: physics and chemistry, five hours; laboratory work, two hours; natural sciences—animal and vegetable anatomy and physiology, two hours; twelve conferences on hygiene.

From these courses of study it is evident that relatively little time is given to the sciences below the college grade—in no case more than one-eighth or one-twelfth of the whole time; and yet the schools cited are for boys, who are taught more science than the girls.

In the course of study for secondary schools for girls (from twelve to sixteen years of age) there is the following assignment of studies:

First year: natural history—zoölogy, botany, one hour, each one semester.

Second year: natural history—geology, botany, one hour, each one semester.

Third year: physics and chemistry, two hours.

Fourth year: physics and chemistry, one and one-half hours; anatomy and physiology of animals and plants, one hour.

Fifth year: physics and chemistry, two hours; anatomy and physiology of animals and plants, one hour.

In all there are ten hours work in science, covering a period of five years, or two hours a year.

The illustrations found in the papers on physics and chemistry are carefully drawn, but seem to be copied from printed illustrations rather than taken from apparatus actually used. They therefore lack originality and freshness. The individuality of observation which laboratory work is thought to cultivate is not apparent. Practical experiments by pupils are deferred to the college age, and this is probably the reason for defects of illustration.

The work of pupils of the lowest grade seems drawn from various schools, one or two exercises from each. This plan of selection would seem to preclude unity of presentation and affords little ground of judgment as to excellence of work. It were difficult to form an opinion of the work of any school in any line, if only two or three exercises of a kind were to be seen.

The best display of science work seen in the French exhibit is to be found in the papers from the normal school of Douai, Nord. Here is shown thoro work covering a period of three years in the sciences of physics and chemistry, including two years of laboratory practice. This is the more noteworthy, because teachers who receive such training will be prepared to take up with pupils under them the common illustrations of science, which occur on every

hand, not as isolated cases, but as illustrations of principles of far-reaching application. Only teachers thoroly trained in science can have such a conception of the relation of parts to the whole, such a conscious recognition of the illustrations of fundamental laws afforded by phenomena observed, as will enable them to lead their pupils directly, if unknowingly, toward a comprehension of these laws whose discovery has made possible the scientific achievements of the present day.

The scientific work of the great universities of France is represented in the exhibit by printed pamphlets, monographs, treatises, and reports, and by collections of photographs showing laboratories and equipment. Time will not permit a statement of the scheme of study they present. The catalogs are submitted for examination in the French exhibit.

In the British educational exhibit excellent, and very interesting and instructive, collections of pupils' work in science are to be seen. The subjects represented are botany, zoölogy, physics, and chemistry. The plan pursued is the presentation of the work of classes of typical schools of different sections, from which the character and quality of the work generally done may be inferred. The illustrative drawings are remarkably well executed. Scientific accuracy and artistic taste and skill are shown. In botany especially is this apparent. The drawings in many instances have the appearance of engravings for scientific illustration, tho they are evidently taken from actual specimens of groupings of apparatus used in demonstration. This excellence was the more noteworthy because attained by pupils whose age was from one to two years less than pupils of this country engaged in the same work.

Another impressive fact, which was also apparent in the French exhibit, was the practice of studying the several sciences taught in our high schools simultaneously rather than successively, so that before completing the study of a given science the pupils pass thru several years of development, in this way making in each succeeding year a more intensive study of each of the subjects. Such study of a subject may well be likened to a broadening spiral curve, which at each complete turn reaches a higher point and includes a broader area. The accuracy and definiteness of drawing were equaled by clearness and intelligence of statement of principles and by correctness of inferences drawn from phenomena observed. The results obtained by the process employed suggested the inquiry whether it is not more in harmony with the laws of development to keep the same subject before the mind of the growing pupil for several years, thus allowing time for the assimilation of the ideas presented and for the gradual growth of the apperceptive mass, than to change the subject each year or each semester. May it not be true that the best results in education are to be obtained only when the rate of progress is normal, and also that, within a certain interval of time, too many thoughts of one kind may be presented for their ready and complete digestion?

The exhibit of Germany in the educational department is admirable in its completeness and arrangement. Here in profusion are shown the tools of

education and the material aids to instruction. The display of illustrative material and apparatus for use in scientific instruction challenges the attention of everyone and commands the careful examination of the teacher. The most perfect instruments devised for scientific research may here be inspected with the assistance of thoroly informed and studiously courteous experts, and every grade of scientific teaching is furnished with suitable apparatus for demonstration purposes. The collection of scientific apparatus is not presented as an advertisement of the manufacturer, but each piece has been selected for the exhibit by competent professors and teachers because of its mechanical excellence and its adaptation to the use for which it was designed.

Complete lists of apparatus and illustrative material used in the schools of different grades have been carefully prepared for the inspection of those interested.

Especially noticeable and suggestive is the display of apparatus for use in the common schools of Berlin. In this city each of 183 schools is supplied with scientific apparatus for use in teaching physics and chemistry, more abundant and of higher grade than most high schools possess. Botany and zoölogy find abundant illustration in models and preserved specimens and charts. The skill of the taxidermist and model-maker, and the art of the colorist, have been engaged to represent to the eye the object to be studied scientifically.

The exhibit of text-books used is very extensive. The dominant characteristic seems to be scientific severity of illustration. Ornamentation is not the object, and its absence is noticeable. The exceptions are books designed to show in actual colors the flowers to be considered in the work in botany.

To attempt to speak in detail of the apparatus exhibited would be vain. If it was the purpose of those who prepared the German exhibit to emphasize the great importance of the object and of the experimental side in scientific instruction, a more effective display could not have been conceived.

To the teacher of science who is open-minded and hospitable to truth wherever presented the exhibits of the nations in the Educational Building furnish fruitful fields of investigation, which should yield abundant harvests of improved methods of scientific instruction.

THE NATURE AND EDUCATIONAL VALUE OF THE SCIENTIFIC EXHIBITS OF HIGH SCHOOLS AND COLLEGES OF THE UNITED STATES

GEORGE PLATT KNOX, PRINCIPAL OF GARFIELD SCHOOL, ST. LOUIS, MO.

We are met within the gates of the universal exposition which commemorates the purchase of the Louisiana Territory. This meeting-place was chosen both to do honor to the wisdom of the purchase and as well that we might

derive some of the immediate benefits of this wonderful exhibition. The nations of the world have joined with us in showing the achievements in the products and processes of man's industry and thought during the last one hundred years. The exposition is to a large degree educational, and it is preeminently fitting then that we proceed to study the exhibit which is here spread before us. And if I am able by a preliminary study to give you some suggestions as to the nature and scope of the display along the lines in which we are more immediately interested—that of science instruction—my privilege will be great indeed.

The very able paper to which we have just listened has presented matters of interest in the exhibits of foreign countries. My topic follows well upon this, being a study of the nature and educational value of the scientific exhibits of high schools and colleges of the United States. The feast of good things spread before us for our view and inspection is a delight. The mass of detail is well-nigh bewildering, if we attempt to encompass all that is offered by the exhibitors. Days are not enough; weeks alone would suffice, of patient, careful study, before one could feel that the exhibit were mastered even within the comparatively narrow limits of our scientific exhibits of high schools and colleges of the United States. But even a cursory view will yield good returns, and to whatever extent we may make it possible to go deeper into the study, we shall surely feel amply repaid.

As the name would imply, the Palace of Education and Social Economy contains, with but slight exception, this exhibit which most concerns us. The domain of applied sciences extends, of course, largely over the whole contents of all the buildings; but the educational value of the work in pure science may be largely viewed in the Educational Building. The universities have individual booths which are located in the northwest quadrant of the central court portion of this building. The remainder of this central court is devoted to the foreign educational work. Technical and engineering schools are found in the west corridors of the main building. In the north end of the west corridors are located the excellent exhibits of the agricultural colleges shown collectively under the direction of a committee of the Association of American Agricultural Colleges and Experiment Stations. The north corridor is given up to the state exhibits of elementary and secondary education. Here will be found the display of high-school work, and that of colleges and universities which are not installed in the separate booths.

Taking up first the work shown from the high schools, it is excellent both in quantity and quality. The display consists of photographs of laboratories, outlines of courses, written work of the pupils, and samples of products made by them. In all of these lines evidence is shown of excellent work done. There is, of course, a considerable similarity evident, but this is to be expected in view of the constant interchange of ideas of method and processes and the means of working them out. Uniformity in our secondary-school work is an end toward which we are striving, and a considerable similarity of exhibit

is a natural consequence. Close study, however, will be rewarded by many instances of special proficiency along certain lines, and the similarity thus gives way to a general uniformity in the main bulk of the work done, with special excellencies observable in many points. All thru the exhibit are large evidences of the advance in the so-called laboratory method; in most cases to a laudable and healthful degree, in a few instances more emphasis is desirable, and in one or two cases I must say I think it has gone a bit too far. But it is not my purpose in this paper to criticise or to laud unduly in these matters, but rather to stimulate, and if possible, to aid you in making your own observations. I hail with highest commendation the many evidences of the pursuit of the highest form of science-teaching—the training of the pupil toward greater ability to do and think for himself. Every means and every method of teaching which increases the pupil's power to observe phenomena accurately, to make deductions directly and correctly therefrom by the application of known laws and accepted hypotheses, is admirable and desirable. And the evidences of a gain toward this end in our teaching are numerous and gratifying. The photographs of laboratories show that in many high schools facilities are provided to pupils which are fully equal to the best average of college and university equipment, and in a great many cases are superior to what the pupil will find when he goes to the general science laboratories of the higher institutions. In their desire to further their research work the universities are prone to equip to their best extent the laboratory facilities for the more advanced or graduate students, and then of necessity provide less adequately for the first- and second-year students. And, on the other hand, there has been a remarkable advance in the last few years in the equipment of high-school science laboratories, so that now these latter very considerably overlap in their lines of work the higher institutions, and quite often provide better laboratory accommodations to their pupils for advancement in scientific pursuits.

A careful examination of the courses of study shown will be well worth while. As to the written work of pupils, many specimen sheets are in the wall cabinets, while beneath in bound form may be found the work of whole classes. This comprises examination papers, laboratory notebooks, both first draft and copied (and beware the difference), and more or less elaborate compositions and theses. I dare not here, for lack of time, enter at all into the discussion of the enticing questions of the form and method of making these laboratory notes and of the form of the written examinations in these subjects. Whatever our view on these mooted questions, a delving into these masses of literature at first hand will doubtless render us only the more strongly intrenched in our own pet opinions, for all kinds of work is shown, on the basis of which almost any proposition may be proved. I must, however, in passing, pay a word of tribute to the value to us science-teachers of the work given to pupils in drawing in their elementary- and secondary-school training. Most excellent ability is shown by the many samples of sketching done by

the pupils in biology, physiography, physics, and chemistry; without this training of our pupils in drawing our own science-teaching would suffer greatly.

Under products of work I would mention the extensive and excellent exhibits of prepared substances in chemistry; the very interesting and valuable collections of minerals and rocks obtained by field work in mineralogy, physics, geography, and geology; the efficient apparatus and instruments constructed by the pupils in physics; the admirable collections mounted by pupils in their botanical, zoölogical, and physiological studies, also in the drawings in color; all these demand especial mention and consideration, were the time not so limited. An examination of these exhibits will prove the force of my suggestion that in many cases the work, not only in extent, but in quality, is overlapping that of the colleges and universities in their first and even second year's work.

I do not enter upon the field of applied sciences, manual training, and engineering. As displayed before us, it is extremely interesting and gratifying—a study in itself.

Within the scope of exhibits of agricultural colleges you will find much that is of great value. It partakes of the nature of photographs, a large amount of apparatus set up, extensive displays of natural products and laboratory prepared substances, interesting expositions of processes, graphic representations of industrial and commercial values. Of all these the least that can be said is that the progress in the sciences is very evident. Not only is it keeping pace with the foremost researches of the universities, but in very many points it is just here that the investigations are conceived and carried on, and the important results given the widest interest and application. Too much praise can hardly be given to the workers in these lines for their valuable uplift in human life and activities. They make it possible, both literally and figuratively, for many blades of grass to grow where none grew before.

Passing finally to the exhibits of universities, we find the same general nature of display. Photographs largely predominate here, and are very valuable in showing actual conditions in which the work is carried on. Many models are set up of campus and buildings. The work is shown by instruments, prepared products, drawings, sketches, plaster models, literary output, and all the multitudinous manifestations of our American university activities. A summary which would be brief and at the same time adequate or logical is quite impossible. Each university has its own individuality, its own preferred fields, its own choice methods. These are admirably depicted in appropriate and unique ways; each in itself appears best for its purpose, so that as a whole the exhibits of our universities possess a pleasing variety and gratifying extent. A pride in these institutions is pardonable. They stand as monuments to the generosity of their founders; to the patient labor, well-nigh tireless industry, and in many cases self-sacrificing devotion of the members of the corps of teachers and investigators; and last, but not least, to the

zeal, energy, and loyal support of the great mass of young men and women composing the student body.

A view of our educational activities such as this exposition affords puts new courage within us, gives us greater wisdom toward the solution of our problems, a clearer view and better grasp of our methods, and higher ideals for our attainment. Ours is the noblest work in the world. May our study here together enhance our worth and increase our abilities in our high calling—the uplift of humanity thru its education!

APPLIED GEOGRAPHY, ILLUSTRATED FROM THE LOUISIANA PURCHASE

ARTHUR G. CLEMENT, INSPECTOR OF SCHOOLS STATE EDUCATION DEPARTMENT, ALBANY, N. Y.

Every department of thought and endeavor may be regarded in a twofold aspect. It may be viewed theoretically—i. e., as pure science; or it may be considered practically—i. e., as applied science. In the former case it deals with the principles in accordance with which the phenomena of the subject under consideration are classified; in the latter case it treats of the application of these principles to some useful purpose. One hears constantly of applied chemistry and applied mathematics, and the terms at once convey to the mind a clear idea. The term "applied geography," tho not so common, has a similar significance.

The subject-matter of the science of geography consists in a consideration of the topographical distribution of the great features of the earth's surface—its lands and oceans, its rivers and lakes, its mineral and vegetable resources, and its animal life, including man himself. Applied geography implies the activity of man in investigating his relations to his surroundings and the reactions of mankind on its geographical environment, explaining how man by taking advantage of geographical conditions, and changes of conditions may promote his material prosperity, advance his interests and the interests of society.

Guizot says that civilization depends on two factors—the progress of society and the progress of individuals, the amelioration of the social order and the expansion of the mind and faculties of man. It is our purpose to show how applied geography, by recognizing and utilizing those physiographic conditions which aid the development of a country, helps to advance civilization. Altho illustrations may be found in all parts of the world, we wish to draw attention specially to those on the Louisiana Purchase territory.

This territory now comprises the states of Louisiana, Arkansas, Missouri, Iowa, Nebraska, North and South Dakota, and parts of Minnesota, Montana, Kansas, Colorado, and Wyoming; also Indian Territory and a part of

Oklahoma. It was purchased from France in 1804. In the first place, it may be observed that the reasons leading to its purchase were prompted by a consideration of geographical conditions. Jefferson in January, 1803, advised Congress to purchase from the Indians a strip of territory along the Mississippi, north of the Yazoo river, in order to possess "a respectable breadth of country on that river from our Southern limit to the Illinois at least; so that we present as firm a front on that as on our Eastern Border."

Jefferson realized the great importance of the Mississippi as a unifying factor, and recognized the fact that the expansion of the United States was largely conditioned upon the control of the country drained by this river and its branches. Someone may say we are placing too much stress on the influence of the topographic element in discussing this phase of our expansion, but it must be borne in mind that we are seeking to present the influence of this element as controlled and modified by the human will. In all problems of applied geography the human will is necessarily a large factor; and it was in the development of this territory. As soon as the territory was opened, thousands crossed the river and took possession of the best lands. It was due to physiographic reasons that the pioneers preferred these lands to those in the regions north of the Ohio. The soil and climate of the former were better adapted to the raising of crops requiring slave labor, which was not allowed in the Ohio country.

Jefferson also recognized the importance of the location of New Orleans as a strategic point—an excellent illustration of the application of geographic factors in determining important action. In a letter to Robert Livingstone he said: "There is one spot on the globe, one single spot the possessor of which is our natural and habitual enemy. It is New Orleans through which the produce of 3/8 of our country must pass to market." That single spot was the geographic key to the political situation at that time, and Congress, recognizing the fact, purchased the whole territory in order to control that spot. It might easily be demonstrated that Napoleon, who had great dreams of colonial empire on this continent, restrained his ambition and parted with this section largely on account of opinions formed as the result of considering the geographic factors involved in the problem of its retention.

Expansion even in those days met with opposition. The older states in the East opposed with great vehemence, and largely from motives based on geographic causes, the plans of Jefferson to acquire so vast a territory. They perceived that the opportunities for transportation offered by the Mississippi would tend to divert western interests from the East to the South, and they feared the effect on eastern prosperity. They even argued that after this area had been carved up into states, as geographic reasoning indicated it would be, the economic interests of that vast region unified by the Mississippi valley would ultimately cause the formation of an independent confederacy. They did not perceive that there were other factors of a geographic nature that would finally determine a larger and a nobler unity.

It is hardly necessary to draw attention to the factors of soil and climate that have made possible the development of the states now included in this purchase—how man, by taking advantage of conditions of soil and temperature and moisture, has developed the sugar and rice plantations of Louisiana, the cotton fields of Arkansas and other states, the corn fields of Iowa, eastern Kansas, and Nebraska, the wheat and other grain fields of the Dakotas, and the mineral resources of Colorado, Wyoming, and Montana. All this is a matter easily and commonly understood. A tour of the various buildings on the exposition grounds will disclose what products each state most prizes.

It was not a difficult matter for the pioneer under the homestead act to take up and cultivate these lands and make thousands of homes in a section highly favored by nature with excellent soil and climate; but all such available country is now occupied, and still there are people who long to go west if there is opportunity to settle there. There is still a vast territory west of the one-hundredth meridian which has not been utilized. It has fertile soil, but unfortunately lacks moisture. When I was a lad, this part of our country was designated in the geographies as the Great American Desert. Thousands of acres of this so-called desert are included in the Louisiana Purchase and form a part of the great plains. Careful study of geographical conditions has disclosed the fact, that by taking advantage of the topography of the country, water can be stored and irrigation utilized in such manner as to reclaim the land and render it valuable for agricultural purposes.

The National Irrigation Association, formed for the purpose of preserving our national resources, has long advocated the construction of large reservoirs by the federal government for flood protection, and for the purpose of saving for navigation and irrigation the flood waters that annually run to waste, causing overflow of streams and destruction of property. The suggestions of this association have at last attracted the notice of our lawmakers and have been embodied in acts of legislation. President Roosevelt in a letter to the National Irrigation Congress in 1903 said: "The passage of the national irrigation law was one of the greatest steps, not only in the progress of the states, but in the progress of all mankind."

On recommendation of the director of the United States Geological Survey, the government has granted authority for the acquisition of necessary property and rights of way preliminary to the construction of irrigation works in five localities under the authority of the reclamation act of 1902. Two of these are on the Louisiana Purchase, Sweetwater dam in Wyoming, and the Milk river project in Montana. These reservoirs will cost millions of dollars, but they will reclaim several hundred thousand acres of land. All the geographical factors involved have been carefully considered, and the projects seem entirely feasible. Incidentally it might be mentioned that there is on the exposition grounds an exhibit of methods of irrigation.

In the same letter in which the president spoke of irrigation he said: "The irrigation development of the arid West can not stand alone. Forestry is the

companion and support of irrigation. Permanent irrigation and destruction of forests cannot exist together." The problem of reforestation is largely a question of applied geography. Already the United States has many forest reserves of large size, several on the Louisiana Purchase. Not only must forests now existing be preserved, but trees must be made to grow in large numbers where they do not now flourish, if the greatest economic results are to be realized. Careful study of geographical factors has demonstrated that certain kinds of trees, like poplar and honey locust, can be made to grow on the western plains. There is on the exposition grounds an exhibit covering several acres, intended to show the most approved ideas in regard to the plantation of forests.

One way by which the preservation of forests at the head waters of streams will aid that section is by preventing disastrous floods along the larger streams below. It is confidently expected that after the storage dams are finished to hold the storm waters, these works, in connection with water-holding power of roots of trees, will prevent the great losses by flood along the Mississippi that occur annually. I presume the flood-sufferers who have witnessed the great yellow surge passing by St. Louis several feet above the danger line will express some skepticism as to the practicability of these schemes. Yet with the proper use of large sums of money expended in accordance with the directions of men who have carefully studied all the geographical factors to be overcome in constructing these reservoirs and in reclaiming the forests, they seem entirely feasible.

It is interesting to consider the sociological results that may follow the accomplishment of these vast and expensive schemes. There can be no doubt that these lands once reclaimed will be rapidly parceled into farms—probably small farms, since the price of land will not be low, owing to the great cost of irrigation. The homes thereon will therefore be numerous and not distant one from another. They will be filled with a thrifty people. Churches and schools will be available for all, rural mail delivery service and telephone communication will be prevalent, and all the conveniences of modern life will be enjoyed; in short, as a result of wise application of geographic principles, ideal rural communities will come into existence where there is now only arid land.

These lands will produce vastly more than the population will consume, and will increase largely the business life of the Louisiana Purchase country. Where will this produce find a market? How will it reach the consumer? These are questions that will be solved by the application of geographical principles. Will the tide of trade tend eastward and thru the enlarged Erie canal reach the ocean, or will it go southward attracted by the influence of the Panama canal? The development of the arid land of the West and the construction of these canals, each undertaken after careful consideration of the adverse geographical factors to be encountered, are sure to affect the future commercial relations of the inhabitants of the Louisiana Purchase.

Applied geography indicates that when these vast improvements are effected there may be great rivalry for commercial preference. There will surely be a rapid development of the ports of the Gulf of Mexico, and New Orleans may become a close competitor of New York city from an economic point of view. St. Louis may become one of the greatest collecting and distributing centers of the world. Just as the building of the Suez canal restored to the Mediterranean the commercial activity which it lost by the discovery of the Cape of Good Hope route, so the opening of the Panama canal may restore to the South the advantages of its union with the Middle West which it lost as a result of the causes leading up to the Civil War and the development of the trade routes to the East. Applied geography points out that there will be great competition for traffic between these two routes, and it proclaims that the Mississippi valley and Louisiana Purchase country are destined to be the center of a greater unity of the South, the East, and the farther West, and the focus of the greatest civilization the world has ever seen.

DISCUSSION

Chester B. Curtis, acting assistant principal, Central High School, St. Louis, Mo.— I shall agree or disagree with the statements so ably presented by the preceding speakers, neither in a spirit of flattery nor in one of hostility, the sole object of the discussion being to seek the truth thru honestly expressed opinions and observations.

The portions of my discussion which supplement and confirm the facts presented by Mr. Bryan and Mr. Knox are the results of personal study of the exhibits.

Considering the topics in the order of their presentation, I find that the material for study in all the foreign countries is included in the exhibits of Germany, France, England, and Sweden; that the *methods* of teaching science must be inferred; that the inferences must be drawn from totally unlike data. France and England present photographs of classes at work; both show the laboratory method. The faces of the English children appear the younger by one or two years for the same grade of work.

Germany and France present text-books; England, none. The German texts appear the more scientific and methodical in statement and the better illustrated; neither, however, comparing favorably with our own American texts.

Germany presents a complete set of demonstration physics apparatus used in the 183 common schools of Berlin, and the most complete scientific equipment for the study of advanced physical, chemical, and astronomical subjects in university courses. It is largely upon this exhibition of apparatus that one must base his conclusions concerning science-teaching in Germany.

I conclude, therefore, that Germany has a highly organized and closely articulated course of study extending from the kindergarten thru the university. From the standpoint of an educational director the system is perfect. There is no evidence of individuality on the part of the teacher. The system tends to produce a large number of investigators and theoretical experts.

Whatever may be the facts, the courses of study in England would seem to produce fewer experts and more liberally educated artisans. There is no uniform system of science text-books in England. The city boards of education prescribe courses to be developed and treated according to the plans of the school faculties. In England drawing is prescribed in all the lower grades. This enables the pupils to give much clearer expression to their

science work by artistic and accurate illustrations in their written work in botany, physiology, physics, and chemistry courses extending simultaneously over four years of consecutive study. All science work, as far as I have observed, is done by English pupils at an age one to two years younger than our own. Their results, however, are equal to any I have seen, and in some instances superior.

It is my conviction that the English teachers possess a freedom of presentation not found in Germany or France. They secure most excellent results in illustration, in statement of facts, and in correct deductions. I noticed particularly the development of the logical faculties of the English pupils, indicating intelligent growth. This fact is confirmed by the exhibit of the London public schools, and by the varied and superior products of the great technical schools.

Germany presents the apparatus, i. e., the machinery of education; England, the products.

Passing now to the second topic, I consider these exhibits of value only to the extent that educators who are seeking to improve their methods may find here and there standards higher than their own, which, in being adopted the country over, will soon elevate the plane of science-teaching.

That exhibit is the most valuable which shows the greatest unity. For instance, of two states presenting the same amount of material, illustrating science, that one in which work of a representative city, town, or county is exhibited is superior to that in which the written work is collected at random and bound in composite volumes. California, Illinois, New York, Minnesota, and Missouri have excellent exhibits and represent unity.

Completeness is a great factor in the value of an exhibit. As a single notable example, California has a large number of complete individual exhibits from cities and towns, in any one of which one may follow consecutively the science work from the lowest to highest grades. The city of Oakland presents a valuable set of so-called "Books of Methods," consisting of about thirty typewritten volumes prepared by the teachers of the various subjects taught in the grade and high schools. Each paper is a complete monograph on the subject under consideration.

The best illustrated science work is found in city exhibits, for the reason that in many city schools drawing is introduced into the lower grades and followed consecutively thru the high school. One notable exception is the science work of the Winnebago (Ill.) county schools. What it lacks in artistic effect is compensated for in its sincerity.

I consider a graphically inferior, but sincere, illustration of a natural object or piece of apparatus of more value to a pupil than an artistic and accurate copy of a text-book illustration. Wherever colored drawings can be made to advantage in botany, physiology, and nature study, especially without sacrificing the scientific for the artistic, it is the more helpful. In test-tube work involving color reactions, and in the study of the theory of ions, even chemistry is the gainer. There is danger in colored illustrations if the pupil appreciates the artistic beyond the scientific value of the work.

In a nature-study exhibit I noticed a tinted drawing of what appeared to be a crystal of beryl in which the pupil had not been impressed with its hexagonal symmetry or crystal structure. To this child it was a pretty object. In another place I saw a pen-and-ink sketch of a mass of granite. On the same page were enlarged drawings of the simpler crystal forms of feldspar and quartz.

In the botanical side of nature study blue-printing is valuable in preserving the forms of grasses, leaves, and delicate ferns.

The chief value of an educational exhibit is its actual class work. St. Louis is especially favored in its opportunity to present classes in many subjects working daily from 3 to 5 P. M. in a model schoolroom.

We are indebted to Mr. Clement for a well-written and interesting paper on a new phase of an old subject. I have the feeling, however, that the term "applied geography" as used in parts of the paper depends for its significance upon the assumption of meanings

which are not warranted; that the definition is too inclusive. For instance, I do not agree with the use of the term in a retroactive sense. I do not think we are warranted in accounting for the acts of Jefferson and Napoleon, after a lapse of a century, on the basis of applied geography.

The discovery of Neptune, one of the greatest triumphs of astronomical history, is an illustration of applied mathematics. In the light of the present interdependence of astronomy and physics, this discovery is not considered as a problem of astronomical mechanics or of celestial dynamics.

Jefferson even opposed the purchase of the Louisiana Territory, and changed his views only because of popular clamor and the strategic value of New Orleans. With Napoleon it was a problem of transports and money. Lacking both, he chose to sell rather than have a hostile country acquire the territory.

The statement is made that the soil and climate of the new region were better adapted to the raising of crops requiring slave labor which was not allowed in the Ohio country. Slave labor implies economic and sociological, not geographical, reasons.

Again, the development of sugar and rice plantations, the cotton and grain fields, and the mineral resources of the Louisiana Territory should be considered applications of industry in agriculture, mining, and railroading.

I agree heartily with the writer in the correct use of the term "applied geography" in reclaiming the Great American Desert; in building reservoirs to accomplish the double purpose of preventing floods and supplying irrigation facilities; and in the preservation of forests.

THE MICROSCOPE IN THE BIOLOGICAL LABORATORY OF THE HIGH SCHOOL

JOHN F. THOMPSON, INSTRUCTOR IN BOTANY, HIGH SCHOOL, RICHMOND, IND.

Probably the first mistake that a well-prepared high-school teacher makes in teaching any subject is that he overestimates the ability of his pupils. He not only overestimates their ability, but he overrates their knowledge of the subject in hand. Pupils at the age of fourteen or fifteen years have not acquired much technique in doing things. The things they do best are those which call into use their larger muscles. A boy at fourteen can play a fairly good game of ball, for in batting he has only to hit the ball, caring but little for accuracy of direction; but not one in fifty can make the more delicate stroke required in lawn tennis, where the direction of the ball counts for much and strength of muscle for but little. So I think it is for all of their games: the things they like to do call for a display of muscle rather than skill, and so we find that boys love to jump, wrestle, throw, and the like. In drawing, a boy can make a triangle or a square; can draw a fairly good picture of a house or horse, or a cartoon of someone he knows; but his penmanship is bad; he cannot follow a ruled line; part of the time he is above it and part of the time below. The reason is plain: in the one kind of activity he uses large muscles and gets pretty fair rough results; in the other kind he is forced to abandon his larger muscles and to bring into play smaller ones, those he has not learned how to use, and the results of his efforts are bad, and when he is required to do work

calling for skill rather than strength, he soon wearies. Such work is irksome, and he hastens to get it done regardless of results. It is hard to interest him in things he cannot do. Work that may be deeply interesting to older pupils fails to interest him, because its performance is painful to him.

There is no question but that the teaching of biology in the high schools has in the past fifteen years improved 100 per cent. First, because the teachers are well prepared; that is, they have had good training in our colleges and universities. They know the subject. This was not the case fifteen years ago. But those very same well-prepared teachers have sometimes forgotten their own past experience and imagine that their pupils are able to take up work where they themselves have left it in the college. This is probably truer of teachers fresh from college. This is the great mistake which college or university graduates make when they begin high-school work. They try to do university work with high-school children, and this cannot be done. I speak only for biology. It may or may not be true in other subjects. A man who has been in college three or four years has acquired a skill in handling apparatus. Things that have become a habit with him his pupils know nothing about. The manipulation of a compound microscope is to him like walking, and he is liable to forget that pupils fourteen years of age have skill in but few things.

Fifteen years ago there were no microscopes in the high school, and but little, if any, biology was taught; and it is doubtful if what was taught was biology. Now there are many schools well fitted out with apparatus for biology instruction; probably few that are not well equipped with microscopes, microtomes, turn-tables, stains, and sections galore. The scientific spirit is in our high schools. The good work of Indiana's men of science has spread from the colleges and universities to the secondary schools, but I believe our teachers in the secondary schools have overdone the matter in trying to do college and university work with high-school pupils.

Now, it has been my experience, as it has been that of other teachers of science in Indiana, to have tried to use the compound microscope in the study of botany in the high school. I have given it a fair trial, and believe my pupils are good representatives of secondary students. But I think an examination of their notebooks will show that pupils of this age do not make drawings sufficiently accurate, nor are their descriptions sufficiently precise to warrant the conclusion that they are ready to do much work with the microscope. Much of the work shows impatience; much of it shows honest effort, yet is inaccurate. Perhaps there are one or two pupils in a hundred whose work is very good. It all shows immaturity in seeing and immaturity in the muscles concerned in the drawing.

If the average pupil cannot make a good capital letter, or any letter after a good copy, how can one expect him to draw something that is much harder to see and much harder to draw? Pupils must have practice in drawing larger things before they can draw from the microscope. If the average boy

has difficulty in drawing the thallus of a liverwort, how much trouble will he have when he draws the transverse section of the same thallus? There is always a star pupil or two in every class, but instruction in the public schools must be for the majority. Even if one boy in a class is able to do work far above the average of his fellow-students, that may mean only that when he is ready for such work he will become an expert. If a pupil shows unusual ability in music, it is no reason that he should be put on Beethoven's symphonies, but rather that he should be more than ever particular about his scales.

Any teacher knows that a good drawing from the microscope requires time and much patience; and if a drawing is not accurate, it is not good enough, perhaps worthless. If a student at the microscope does not draw what is there, two bad results follow: the knowledge is inaccurate, and the pupil is learning bad habits. Any teacher of music knows that beginning pupils must be kept from playing "tunes." Practice on "tunes" never develops the musician, never develops technique. The same principle holds good here; the eye should first be trained in seeing without the microscope. As training should be toward the symphony from the scale, so training should be from the larger phases of biology to the more detailed where the microscope becomes a necessity.

It has been my experience to have had pupils in my classes who from some cause were not able to take their botany with their class, but were obliged to omit it until their senior year. At that age they could do good work with the microscope, and were able to manipulate the instrument with more precision and draw with accuracy; the only difference between them and the other members of the class being one of age alone.

There are, then, two principal reasons for the poor microscopic work of high-school pupils. The first, as has been said, is that the age of the pupil does not tally with the precision and accuracy required in the work; and the second is that he does not know enough of the subject which ought to precede work with the microscope, so that the things he sees under the lens have little or no meaning.

The microscope is an invention to aid the eye. The average man, the average scholar and scientist, does not look at the world thru the microscope. When the scientist has a good background of facts upon any subject which he has obtained without the microscope, the things that he sees thru that instrument are full of meaning. It is necessary that a pupil have some knowledge of a plant as a whole before he begins with its parts or sections of its parts. The old dictum of Sir William Hamilton holds good here: "The first procedure of the mind in the elaboration of its knowledge is always analytical, descending from the whole to the parts, from the vague to the definite."

It is more scientific that a pupil know a liverwort at sight, where it grows, at what time of the year, and what are its reproductive organs, than to try

to draw the section of its archegonium without knowing the habits and habitat of the plant. A study of plants as they are found in their natural surroundings—the function of the stem, the way leaves are related to light, transpiration, respiration, and the like—should precede work with the microscope.

I would rather a pupil might be able to tell the difference between a moss plant and a fern at sight than to know that the moss descended from an alga and the fern from a liverwort, and not be able to know an alga or a liverwort at sight. A few years ago the kind of botany taught in the high schools was the so-called analysis of flowers which consisted in finding the names of plants. Of course, that was not good botany, but such work had some good results: it took the pupils out into the woods and into gullies and along the rivers; and while pursuing plants only to find their names, they learned many things about their surroundings. They learned unconsciously about plant habits and habitat. The teaching of botany along this line was probably carried to an extreme, and for a time a reaction set in against it in favor of microscopic work; and yet I am not sure but that the pupils got out of it a better knowledge of plants than those who later have studied plants with the compound microscope.

I think, however, that in Indiana the teaching of biology has reached a medium between the mere collecting and naming stage and the almost exclusive use of the microscope.

An intelligent study of plants in the field, learning to identify in order that they may be more intelligently grouped and studied; a study of their habits, their ways of obtaining food, the relation they have to their surroundings—all this should precede microscopic work; in other words, the study of ækology should precede that of morphology. To show that plants are alive and work out methods of doing things just as animals do, is better than to show or draw beautifully stained sections of peziza.

A cat has one way of obtaining food, a ground hog another way, and a squirrel still another. The method is different, but the result is the same. As long as a ground hog has to be a ground hog he must burrow to escape his enemies; he cannot climb a tree successfully, however much he would like to do it; he has worked out his way of escaping danger, just as the squirrel has worked out his and the cat his. Each has come to the same result, but by different methods. Which has the better way may be decided by determining which can the most successfully escape its enemies. Such things as these are intensely interesting to pupils of high-school age, for they mean something.

The lower petioles of the horseshoe geranium are longer than those above in order that the blade may be thrust out into the light; that is the way this plant has worked out of obtaining exposure to sunlight. The leaves of the marguerite have no petioles, but they are much lobed and divided, so that sunlight may pass thru the notches to the leaves below. Each plant has arrived at the same result, but by a different method. Which is the better

is a subject for discussion. Such work with plants always excites the interest of high-school pupils, and while it may not be more important to know about a plant's surroundings, and how it is related to them, and how it adapts itself to them, than to know the origin of a seed; yet it seems to me that a pupil should know these things first.

It is my belief, therefore, that if a course of study have but one year of biology, and that year be the first year, as it is in most Indiana high schools, much microscopic work ought not to be attempted. If there be a longer time given to that science, or if it come in the senior year, some very good work might be done; but with pupils of fourteen or fifteen years of age it is better to teach the larger phases of the subject, making a background for their more minute study, should they pursue it farther in the college or university. I do not believe æcology more important than morphology, but it seems to me to be more important that its study should come first, because it is more adapted to the age of high-school pupils.

I do not wish it to be understood that the microscope is of no use whatever in first-year work in biology. It may be a very great help when manipulated by the teacher himself. It seems to me, for instance, that if the class is studying the relations of the foliage leaf, after its light relations have been worked out and the transpiration and respiration experiments have been made, the teacher could prepare some slides himself, showing the stomata and epidermis. Such slides would mean something to the pupil. But a study of stomata before knowing something about leaf function, while it would be microscopic work and work that the pupil might do, would be meaningless. There are many places where the microscope will add interest and help out many experiments; but from the close work demanded in working with the microscope, and the accuracy which a science teacher must demand, there may be, and is, danger of creating a dislike for a subject which ought to be a delight.

DISCUSSION

S. M. Coulter, professor of botany, Washington University, St. Louis.—There are several factors to be considered in discussing this problem, and, while we may not take any decided ground in the matter, we may get some light from a thoughtful consideration of some of these factors.

First among these is the youth of the student. It has always seemed to me unfortunate that all the botany or zoölogy should generally be given in the first year of the high-school course. It may be the part of wisdom so to alter the course that biological sciences requiring the use of the microscope may be given to more mature students. In any case, the belief that it is unwise to use the microscope in the first year need not carry with it the decision that it should not be used at all.

However, we must take things as we find them now, and if biology is taught in the first year, we are at once confronted with the question: What kind of biology shall we teach? Shall it be taught wholly from the standpoint of gross morphology, relation to environment and classification? Shall we begin with the earthworm and the fern, and stop with the

rabbit and the lily? Shall we not teach of the amœba, the paramœcium, or the alga? Shall we omit from our study of botany the life-history of the fern and ignore the alternation of generations? Can we do otherwise if we do not use the microscope? I presume we will all grant that the student "should have some knowledge of the whole plant, before he begins with the parts or sections of the parts." But shall his knowledge end there? Shall it not rather "descend from the whole to its parts"?

It has been stated that the teacher is apt to overestimate the ability of his students. He certainly gives ample evidence of this fact if he expects them thoroly to understand the cellular structure of plants or the processes of reproduction, from oral explanation, unaccompanied by ocular demonstration. It is a fact, also, that some teachers unwisely attempt to do university work with high-school children, and this fact is to be deplored; but it is not competent evidence to prove that there is no other legitimate field in which biology may be taught properly and successfully with the aid of the microscope. Tho we do not ask the beginner to render Beethoven's symphonies, we do put into his hands the instrument upon which he is to practice his scales. It seems to me that there is more danger that the pupil may receive only partial, or perhaps inaccurate, information regarding the fundamental principles of the biological sciences. That this is true is evidenced by these same students when they enter college and take up botany or zoölogy as it is taught there.

Inaccuracy of observation and interpretation is the legitimate fruit of incomplete instruction. It therefore seems to me that any instruction, however elementary, should be absolutely accurate and complete. How this kind of instruction can be given without the aid of the microscope I can hardly understand. I certainly should deprecate any plan of teaching that would result in the pupil being unable to tell a moss plant from a fern, or to name some of the familiar plants; but I should wish to add to this fundamental knowledge the larger facts regarding the phylogeny of the different groups, the differentiation of the tissues, the development of the reproductive organs. Granted that the study of plants in the field, their habits, and their relations to environment should precede their histological study, still I should be unwilling to see the latter crowded out altogether.

The very large majority of the high-school pupils do not pass on to the more minute study of the plant in the college or the university, and the high-school study must be more than a background for future work. It must be this, and it must be complete in itself at the same time. One deficiency which I find to be common in the students who come to me from the secondary school, altho they may have used the microscope, is that they do not understand it thoroly. In the very first exercise the microscope should be taken to pieces before the student, the mechanical and optical parts discussed and named, and all its possibilities carefully explained.

The number of students the teacher has in each section is another important factor in this problem. The best results can be attained only when the instructor can give personal attention to each student. If there are so many students as to render this impossible, and the results are correspondingly unsatisfactory, the blame should not be set down to the use of the microscope. Perhaps this difficulty may be obviated another year.

The next point is the subject of drawing. It is said that students "must have practice in drawing larger things before they can draw from the microscope." This must be granted, too; but when shall this practice begin, at six or twelve or eighteen? Is the fact that a boy of fifteen does not put down what he sees sufficient proof that he should wait three years before he is taught to do so? I am sure that the same boy will do no better at eighteen unless someone has taught him so in the meantime. I have long thought it feasible and eminently advisable to have a few lessons in scientific drawing given to the beginners in biology by one who is competent to do so. There might then be gradually worked out a somewhat uniform system in the schools and colleges—a condition which surely does not exist at the present.

In conclusion, I believe that two great helps of general educational value will come from the intelligent use of the microscope in the biological laboratory of the secondary school: first, accuracy of observation—the ability to see things correctly; second, accuracy of interpretation—the ability to put things down as they are and to correlate them.

THE SUBJECT-MATTER OF HIGH-SCHOOL PHYSICS

ARTHUR L. FOLEY, PROFESSOR OF PHYSICS, STATE UNIVERSITY, BLOOMINGTON, IND.

What is physics? What is a high school? If these questions were answered definitely, there would not be such wide differences in our high-school text-books of physics and the work done by different teachers. Here the high school is regarded as a finishing school; there as a preparatory school; yonder as a trade school; at another place it includes psychology, neurology, philosophy, and many other -ologies and -osophies, dissipating its energies over a curriculum that makes a university schedule appear insignificant.

Nor is there any greater uniformity in the conception of what physics is. Here it is problem-solving; there it is a mass of definitions; yonder it is entertainment; at another place it is a study of machines; at still another it is nothing at all—unless we call it time-wasting.

Let me say at once that I am not in sympathy with the notion that a high school should be either a college or a preparatory school. It may serve as a preparatory school and do it well, but this should not be the determining factor in the arrangement of its courses.

While it is true that the percentage of high-school graduates who enter college is increasing, it is true also that the number is relatively very small, and is likely to remain so. Indeed, the increasing facilities of the high school, the lengthening of its course, the possibility of a six-year course—all these may tend to decrease rather than increase the percentage of future high-school graduates who will enter college. The high school is now the finishing school, and it will remain the finishing school, of the majority of its students. Its courses should be arranged to meet the needs of the majority who will not have later the additional advantages of a college training.

Someone will say, as is often said, that there is no distinction between a good finishing course and a good preparatory course; that the best finishing course is also the best preparatory course. I do not believe it. If a boy is to go from high school to college, it would be best for him to do as much as possible of his language work during his high-school course, when he can do such work most easily. He should emphasize the observational sciences. His chemistry and some of his mathematics can be done better in college. But if the boy's schooling is to stop with the high school, who would say that the translation of a few more Latin, French, or German books will be of more benefit to him than a study of some of the laws and facts of chemistry?

In the discussion of the topic, "The Subject-Matter of High-School Physics," I shall consider the high school primarily as a finishing school, and I shall hold that some of the subject-matter should be different from that which might be given to pupils who are taking the subject merely as an introduction to a more extended college or university course.

I lately heard a noted physicist advocate a much more thoro study of harmonic and curvilinear motion than is made in any high school with which I am acquainted. This may be well for the student who will later enter college and have occasion to apply what he has learned, and who will have time to learn other things that he was prevented from learning in his high-school course by giving so much time to harmonic motion; but for the high-school pupil who goes out to fight for bread in a world, whose vocabulary does not contain the term "harmonic motion," I am persuaded that any considerable time spent in the study of this topic might better be given to some other subject which would not only develop the pupil's mental capacity, but would, at the same time, give him information that to him will be more useful. I do not mean to say that no subject should be taught which does not appeal at once to the utilitarian. I do mean to say that of two subjects which give equal mental training I should always choose the one which deals with facts that give promise of being most useful in the after-life of the pupil. This does not exclude the teaching of theory, for theory may be eminently practical.

It seems to me that many teachers give too much time to phenomena, and do not make a sufficient effort to develop the reasoning power and arouse the interest of the pupil by teaching fundamental theories and, so far as possible, explaining everything by them; thus making physics a unity, and not a mass of distinct and apparently unrelated phenomena. Take a single instance; our texts tell the pupil that heat is a mode of motion of the molecule, but how many books or teachers give him a thinking, working concept of the kinetic theory? Of a large class of high-school graduates entering college I found not one who could explain, by this theory, how water cools by evaporation. Let the pupils picture to themselves the molecules of water in rapid motion in all directions, colliding, changing velocities, their average kinetic energy determining the temperature, only the fast-moving ones having sufficient energy to shoot thru the surface film and escape by what we call evaporation; the slow-moving ones being left behind, thus decreasing the average energy of the molecules, and consequently the temperature of the water. The pupils should know that a change of state is in general accompanied by temperature changes, and they should understand the application of the principle to cooling by evaporation. But it seems to me that the first explanation explains while the latter merely shows the application of a certain physical law. Moreover, the first has the advantage of making the kinetic theory more real, and consequently more interesting. The statement that high-school pupils should not study theory because they are too young to assimilate it is not true. Young

people have vivid imaginations and receptive minds, and it is much easier for them to accept most theories and get a mental picture of the conditions existing, than it is for the mature man whose imagination is dulled and who finds it very difficult to free himself from preconceived ideas based on experience.

There is another reason for a more thoro study of theory. This is an age of progress. The developments of science are marvelous. A physicist today may become a fossil tomorrow. A student may acquire a fair knowledge of the details of physics, but unless he understands fundamental theories and is able to reason on them, he will be wholly unable to comprehend the developments of the future.

I have already mentioned several of the many ways in which physics is presented in some of our high schools and colleges. I shall consider these in order.

Problem-solving is not necessarily physics. Some time ago I visited what was said to be a physics class in a large high school. The work that had been assigned the class was to calculate the solid contents of the walls of some hollow cylinders. The entire recitation period was consumed in solving the problem by several slightly different methods. There was absolutely no physics taught in this lesson, and the teacher did not alter the situation in the least by saying something about cisterns, pipes, and steam boilers.

I thoroly believe in problem-solving, but I believe in choosing problems which involve physical principles and laws. Problems must not be so numerous as to require an undue proportion of the pupil's time and energy, and so disgust him with the study of physics. The data of the problems should be so chosen as to reduce the numerical work to a minimum. To give a pupil a problem that requires ten seconds for him to grasp the physical principles involved and ten minutes to make the numerical calculations is, from the standpoint of teaching physics, a waste of time.

The time was when the committing of laws and definitions constituted most of the work of physics classes. It is even yet more general than one might suppose. Teachers are required to teach physics when they have had no regular college training and systematic laboratory practice in the subject. They know nothing of the subject, even tho they have passed a stereotyped examination by committing the answers to the one thousand questions of a ten-cent question book. They drag classes thru some physics text-book, committing definitions and solving a few problems, and imagine that they are teaching physics. The multiplication of laboratories has lessened this sort of teaching, but there is still too much of it. Definitions should be reduced to a minimum, and whenever possible they should be illustrated or derived; that is, they should be shown to follow from the given conditions or equations. To illustrate: After showing experimentally that the resistance of a wire varies as its length, inversely as its cross-section, and that it depends upon the material of the wire, one may write the equation $R=p\frac{l}{a}$. Making l and a unity, $R=p$ (numerically), and the definition of specific resistance has been arrived at in a way that means something to the pupil.

Schools everywhere are rapidly increasing their supply of apparatus for illustrative and laboratory work in physics. This has diminished the amount of problem- and definition-teaching. However, in some quarters it has not bettered the conditions very much, because it has substituted entertainment for mental effort. I know of schools having X-ray outfits and an extensive collection of vacuum tubes, and not a galvanometer of any description. A fine model of a steam engine of glass, brass, and nickel, with air pumps, etc., to run it, may be interesting, but to invest money in such a piece, when so many other things are needed, is amusing, to say the least. Physics, real physics, is a difficult study for a high-school pupil, and to hold the interest of a physics class to the highest pitch is the difficult duty of the teacher. Showy and striking experiments aid in doing this, and therefore should be used occasionally. But the sensational and spectacular should not predominate. Nothing can, indeed nothing should, relieve the pupil of earnest, honest work. It is not the teacher's business either to keep the pupil in wonderland, or to sugar-coat and predigest his work for him.

It is surprising to learn how many people there are—teachers even—who regard physics and machinery as almost synonomous terms. To them the word suggests steam engines, dynamos, and trolley cars. In an article published recently a teacher advocates a more thoro study of the dynamo, because dynamos are used so generally. As far as this argument is concerned, we might better study the mechanism of watches and sewing machines. Another has said that we should give more time to the study of the steam engine, because whenever we travel, whether by rail, by trolley, or by sea, we depend on the engine for power. By the same argument it would be much better to study self-binders, threshing-machines, and flouring mills, because, whether we travel or stay at home, as long as we live and eat three times per day, we depend on getting some of their product. The fact is that the study of a machine, however perfect or complicated the machine may be, has no place in physics unless the action of the machine illustrates, better than anything else, some important principle or law of physics. Everybody knows that a steam engine runs by the expansive force of steam. This is a physical principle which the pupils know before they study the engine. The cut-off, eccentric, governor, etc., are mechanical devices, and there are no more reasons for studying them in an elementary course in physics than there are reasons for studying the details of a grist mill. The same reasoning does not apply to the study of the action of a dynamo. People do not understand how a dynamo generates, and the machine itself illustrates electromagnetic induction on a large scale. Hence the pupil should study its action and its general features. But a high-school class should not be required to learn the details of the winding of fields and armatures. Compound wound dynamos have no place in an elementary physics text-book. Some authors have realized that there are just as good reasons for the study of cream separators, pile drivers, and many other mechanical devices, and have included a discussion of them

in their texts. Some have gone to the extreme of including descriptions of machines and apparatus which the pupils may never see and which few teachers ever see. I venture that not more than one science teacher in a hundred has ever seen a Tesla oscillator; and they are not likely ever to see one; yet some of our high-school text-books presume to discuss this machine. A description of a Gatling gun would be just as instructive and useful, and much more interesting.

"Can you name any fact of which you are absolutely sure?" This is the question with which a recent text-book begins. One might well answer that he is absolutely sure that the discussion of such a question by a high-school pupil is a sheer waste of time. Yet a metaphysical question may be as good as one which is neither physical or metaphysical. "If a tree fall where there is no ear to hear, would there be any sound produced?" "A man drives a team of horses around a race track. Does the outer horse go around the inner one?" "If a man walk around a tree on which there is a squirrel which always keeps on the side of the tree opposite the man, does the man walk around the squirrel?" But these questions are old. Text-book writers must be up to date. A recent author introduces something new: "If a monkey sitting on the top of a circus pole always faces a man who walks around the pole, does the man walk around the monkey?" The possibilities of this profound subject are not yet exhausted. There yet remain the owl on the limb and the woodpecker on the snag, for future authors who want to be original.

"What path does a rash man describe who jumps from a moving street car?" In the first place, this question is indefinite. The path depends upon the relative velocities of the car and the man and the direction the man jumps, and not on how rash he is, or on the fact that he jumps from a street car in preference to some other kind of car. In the second place, there are pupils in every class from whom such a question invites an answer which will provoke a laugh, and thus disturb the recitation and make discipline more difficult.

"Why is it easier for a baby elephant than for a baby boy to learn to walk?" I presume that the author intends that the pupil shall recall the fact that the elephant has four legs and the boy but two. But the import of the question is almost sure to be lost by the thoughtfulness of the pupil who calls the attention of the class to the fact that a baby chicken with but two legs learns to walk more easily than either elephant or boy, while a kangaroo never becomes an expert.

"Practical education" is a much-used and much-abused phrase. The desire to be practical has produced a class of teachers who see everything thru an engineer's glasses. A recent writer urges that we teach pupils to "do the thing as it is actually being done in business every day." In illustration of his argument he cites the difficulty pupils have in calculating the specific resistance of a wire when the centimeter cube is taken as the unit. He advocates the "mil-foot" as a unit, "in order that we may get a little nearer the actual method used commercially in calculating specific resistance." He

would take a system which is consistent thruout and which the pupils can be taught to understand and admire, and substitute for it no system at all—but a multiplicity of haphazard units; for where is this thing to stop? The same argument that would change the units in which specific resistance is expressed would change the units in which we express force, energy, mechanical equivalent of heat, coefficients elasticity, expansion, etc. Because engineers use the mil-foot (not all do so) is no reason why students should use it. Indeed, it is no reason why the engineers themselves should continue to use it. Most engineers in this country use the English units, but I think the time is coming when they will not do so. Not many decades ago physicists used all sorts of units. Today they use the metric system exclusively. Granting that physicists have something to learn from engineers, it is true also that engineers have much to learn from physicists. When it comes to a question of units, it is the engineers who must do the learning. The recent widespread discussion and agitation of the question of the general adoption of the metric system show which way the tide is moving.

If we should adopt a mil-foot because engineers use it, then we should adopt a sidereal day because astronomers use it, and we should change all our watches and clocks to read from one to twenty-four instead of from one to twelve. We should use the Fahrenheit scale because most thermometers are graduated to that scale. Perhaps someone will suggest the glass as a measure of capacity, as it is in such general use in measuring ice cream soda and beer.

The same author advocates also the use of tables of the various sizes of wire to save time in calculating specific resistance. Why not go a step farther and use resistance tables and save all the time? If the resistance of a certain wire is all the pupil is to discover, let him discover it from a book of tables. But if he is to be trained to reason accurately and to be self-dependent, let him come to understand physical laws and principles by learning to apply them.

Some time ago I received a letter from a prominent physics teacher asking me what I regarded as the central thought in physics. Upon inquiry I found that his recitations were given largely to the classification of thoughts—central thoughts, co-ordinate thoughts, subordinate thoughts, and so on. Method! Method!! Method!!! But no physics. His students could not well select a central thought when they had none from which to choose. A central thought must have a few others around it to make it central and keep it from toppling over. The teacher must try to inspire his pupils to have thoughts—sound, sensible, serious thoughts. There is little danger that the thoughts may not take their proper rank. I do not mean to say that the teacher of physics need not be logical and systematic. I do mean to say that the getting of thoughts is more important than their classification.

DISCUSSION

August F. Foerste, instructor in physics, Steele High School, Dayton, O.—Any course of study which primarily subserves the interests of the few without vitally touching the lives of the many is out of place in a public school. No excellency of grades attained by a few pupils during college-entrance examinations can atone for a four-year course which fails to give to the great majority the richest and most inspiring experience of which they are capable. No brilliancy of attainment by the vanguard of the class can excuse the feeling of hopeless mediocrity and inefficiency which often settles upon the remainder.

What higher attribute can a student bring with him into citizenship than a ready initiative, due to confidence in his own powers, based upon frequent successes? Each success is a source of inspiration for further effort, and begets confidence and self-reliance. It is not necessary for a public-school pupil to learn that he can do indifferently well what others can do better; but it is essential for him to realize that with his limited capacities, aided only by honest, diligent effort, he can do many things thoroly well. Frequent successes! This should be the privilege of every student. No topic should find a place in the curriculum of the public school whose study cannot be carried to a *successful* issue by the average pupil.

Successful issue? What is the measure of success? Is it not that thoroness of comprehension which results in ability to use, to make of service that which is the subject of study? If definitions, rules, and formulæ give a clearer understanding, if problems or the study of machines, simple of course, give a clearer insight into the operations of physical forces, they are in place. But they are in place only in so far as they increase the power to do, in so far as they increase the self-reliance of the pupil.

Physics should be made utilitarian. To quote the words of Professor Foley: "Of two subjects which give equal mental training, I should always choose the one which deals with facts that give promise of being most useful in the after-life of the pupil."

Theory? Of course, theory should be taught. What is theory but the attempt to secure an intelligent understanding of the operations of physical forces? Will anyone deny that an intelligent comprehension of phenomena is preferable to a mere knowledge of their existence?

Physics, real physics, need not be more difficult than any other study, thoroly taught, provided the subject-matter be chosen from material well within the range of the pupil's comprehension. If a teacher will insist in teaching abstract units, and laws based upon abstract mathematical deductions which the majority of pupils fail to grasp thoroly, or even to retain in verbal memory more than a few days, he has only himself to blame. When a teacher on finishing a subject is inclined to say, "Thank goodness, I am glad that is over with!" it is likely that his pupils are in a worse state of mind, and it is questionable whether or not the undertaking has been of profit.

Physics certainly can be made more interesting than most studies. Experiments should be made as showy and as striking as possible. Work is not predigested by showing striking experiments, but by failing to bring the pupil's intellect into vigorous operation, the teacher becoming so interested in the success of the display that he fatuously explains to the class what wonders *he* has just accomplished instead of utilizing the interest aroused by the experiment to set the pupils more actively to work.

The lack of judgment shown in the choice of experiments and the selection of apparatus may often be appalling, but is certain to pass away as the purpose of experiments becomes better understood. No experiment should be performed which does not assist in the logical development of the subject, or which does not give the class a clearer insight into the operations of physical forces than does the text-book alone. The idea that every topic discussed must be illustrated often leads to experiments so trivial as to be absolutely silly.

No experiments should be performed by the individuals of a class which are of such a trivial character that they invite play rather than study. On the other hand

experiments by the individuals of a class should not degenerate into a course in mechanics or in the manipulation of apparatus. Ample time should be allotted for attaining accuracy of results and for drawing conclusions. The object of the experiment should be stated so definitely, the use of the apparatus explained so thoroly, that the chief intellectual effort of the pupil can be centered on the investigation itself, and on the drawing of conclusions.

Experiments do not increase in value in proportion to the number of pupils who helplessly flounder in their attempts to accomplish the task, but in proportion to the number who carry the work to a successful issue. The amount of help to be given the pupil, and the amount of work to be accomplished by him without further aid, may require delicate adjustment, but what is the teacher for?

The most serious defect is the frequent lack of organic connection between the experiment and the logical development of the subject taught, the experiment often being essentially an interruption or repetition of the work as outlined by the text-book.

The effort of the teacher often seems to be to determine how much the pupil can do, rather than how much the pupil can do well. For this the text-books offer ample excuse. The wealth of material included in the realm of physics, the multiplicity of startling discoveries of intense public interest, have often expanded the book beyond its proper limits. For this there is only one remedy. The text-book must become the tool, not the master.

The subject-matter of physics should be determined by but one thought—its usefulness in developing power and self-reliance. In its selection the highest collegiate training, the most catholic culture, can find play; but it must be accompanied by the deepest insight into child-life, its capacities, interests, and ambitions; and the final outcome must be the reality, not the spurious imitation of education.

THE VALUE OF CHEMISTRY IN SECONDARY EDUCATION

WILLIAM M. BLANCHARD, PROFESSOR OF CHEMISTRY, DE PAUW UNIVERSITY, GREENCASTLE, IND.

The question of the value of chemistry in secondary education is only an outgrowth of the old question of the relative value of the classics and the sciences in education in general. We have no intention of discussing this older question, but only refer to it in introducing the topic under present consideration. The rapid growth, both in number and in efficiency, of our technical and engineering schools, the increasing demand for men with a scientific training, the growing conviction that a nation's industrial progress is in a large measure dependent upon its devotion to science—all are evidences of the widespread belief that in the practical affairs of life either a knowledge of science or the possession of the training which it can best give is of great value. Furthermore, the introduction of the sciences and the opening of laboratories in all classes of educational institutions, even in those that have long placed the chief emphasis upon the classics, is proof that our educators everywhere are persuaded that in the well-ordered college curriculum the sciences must have a place. Of all the natural sciences, no one occupies today a more conspicuous position than chemistry.

If it be granted that at some period in a student's life it is well for him to

study science, how are we to determine to what stage this study must be restricted, if indeed it must be restricted at all? If there is real educational value in the proper teaching of the sciences in the college, why is there not also real educational value in the proper teaching of the sciences in the high school? Believing that high-school science does have true pedagogical value, and being persuaded that every tree will be known by its fruits, the defender of science instruction turns to the table of statistics, hoping that our Commissioner of Education will help him justify his position. But what does he find? Instead of increasing, the proportion of students studying science in our secondary schools is steadily decreasing. In 1891–92, of all the students in the public high schools of our country, 22.82 per cent. were studying physics and 10.17 per cent. were studying chemistry; while in 1901–2 only 17.48 per cent. were studying physics and only 7.37 per cent. were enrolled in chemistry. On the other hand, in 1891–92 38.88 per cent. of the total were studying Latin; while in 1901–2 this number had increased to 50.07 per cent. Again, comparing the number of students preparing for college, we find that in 1891–92, of the total number of students in our public high schools, 6.33 per cent. were preparing for a college classical course and 6.90 per cent.were preparing for a college scientific course; while in 1901–2 these numbers had fallen to 5.59 per cent. and 5.07 per cent. respectively. In ten years the percentage preparing for the classical course had fallen 0.74, while the percentage preparing for the scientific course had fallen 1.83, or more than twice as much.

But in spite of these figures, which apparently furnish an argument for those opposing the teaching of science in the high schools, there is probably no occasion for alarm on the part of those believing in the value of science instruction even in secondary education. Several suggestions have been made with a view to explaining away the apparent meaning of these figures. Someone has suggested that many of the students enrolled in 1891–92 as secondary students were really elementary, having only one study in the higher department, and that more of these elementary students were taking physics and chemistry than Latin. Someone else maintains that the cause of the decrease in the number of high-school students studying science is not to be found in any depreciation of the pedagogical value of these subjects, but is to be looked for in the increasing demands upon the science students by virtue of the greater attention now paid to the quantitative side of these subjects. We are making the requirements so rigid that, where science is elective, many students decline to take it.

May not another explanation be offered? Is it not a fact that the classical departments in our colleges require more language for entrance than they did ten years ago, while in the same institutions in many cases no entrance requirements in science are made at all? Then, again, do not many of our technical and engineering schools require language, and in most, if not all, cases Latin, for entrance, while they not only do not require chemistry or physics, but in many cases prefer that the student shall receive his first instruction in these

subjects in their own laboratories? Even in our so-called classical schools, where no entrance requirement in science is made, the student receives no credit for his high-school science and has to go over it all again. When the subject is thus discounted, what wonder that the student should pass it by when he finds it among the electives! Here is a dilemma in which the teacher of high-school science finds himself. Some maintain that he makes his subject too difficult, and for that reason the students avoid it; while others maintain that he does not make it difficult enough, and for that reason the colleges refuse to accept it. What are we going to do about it? But it is not our purpose to discuss the limitations of high-school science instruction, but to consider the question of the value of chemistry in secondary education.

We shall look at the subject from two standpoints:

First, the conditions determining the value of chemistry in secondary education.

Secondly, the educational and moral value of high-school chemistry when taught under favorable conditions.

With reference to the first part of this subject, it may be said, in the first place, that, in order that a high-school student may pursue any subject with advantage, that subject must be presented by a competent teacher, and that teacher must have all the material aids that may be found necessary for elucidating the subject-matter. The high-school chemistry teacher must be well trained for his work, and he must have the necessary equipment for the laboratory and the class-room. It seems to us that no one should undertake to teach chemistry who has not himself pursued the subject for at least three years. The field of chemistry is so broad, and there are so many different phases of the subject, that one can scarcely hope to appreciate its magnitude and its relations to other branches of science without following the subject for at least three years. The high-school chemistry teacher should have had at least one full year in general chemistry, attending three or four lectures a week, and spending six or eight hours a week in the laboratory He should be well grounded in the more important theories of general chemistry, and somewhat familiar with their origin and with the history of their development; he should have some training in organic chemistry, and should be thoroly alive to the remarkable syntheses possible in this branch of the subject; he should be familiar with the most common of these syntheses, and should have gained this familiarity thru personal experience in the laboratory he should have received some practice in the analytical side of the subject, both qualitative and quantitative. It is not expected, of course, that a teacher of high-school chemistry be called upon to teach all that he knows. A teacher of Latin will certainly be familiar with many more authors than he will ever read with his students, and will have far more historical information about his subject than he can hope to present to them. The teacher of high-school chemistry must not only be acquainted with the well-trodden paths over which he may be called upon to lead his students, but he should also know

the by-ways, the ins and outs, the trails not yet frequented, and perhaps will himself have been the first to open up some new trail—the first to explore one of nature's mysterious labyrinths. The teacher must have the scientific spirit and must have acquired the scientific habit. This is more important than the mere possession of knowledge; it is the very source of enthusiasm and inspiration; and it is the getting of the scientific spirit and the implanting of it in others that makes science worth while. No one has received his full training in chemistry, or in any science for that matter, until he has gone over the whole field in a general way and at the same time prosecuted some research along some special lines. It is to be hoped that some day will find a university-trained man in every branch of high-school science, and Ph.D.'s as common in the high-school faculty as they are now in that of the college.

But the training and the efficiency of the teacher are not the only condition determining the value of chemistry in our secondary schools. Chemistry is of no value without a laboratory. Looking at the magnificent buildings that are being constructed for this purpose all over our country, and noting the thoroness with which they are being equipped, one hardly needs mention this part of the subject And yet there are schools that pretend to teach chemistry and still have no facilities whatever for laboratory instruction. One of the greatest contributions made to the pedagogical world was the laboratory method, and this contribution was made by science. Soon after laboratory instruction was generally introduced, like every other new thing that is good, it was much abused; from no laboratory, many schools soon swung around to all laboratory, and this was found to be as great an evil as the first. Now the question that is still discussed is the question of the proper balance between the time given to laboratory work, on the one hand, and that devoted to recitations and reviews, on the other. There are prominent educators who still believe that in high-school physics the laboratory work on the part of the student may be replaced by carefully planned lecture experiments on the part of the instructor, the student making drawings of the apparatus and working out all the problems connected with the experiments. However this may be, everyone must admit that for the successful teaching of chemistry a proper amount of laboratory work is indispensable. We believe the amount of time given to laboratory work should be at least equal to that devoted to recitations and reviews, and this time should be so arranged that the student can have at least two consecutive hours in the laboratory at each period.

Another condition determining to some extent the value of chemistry in the high school is the time at which it is taught. As lack of time forbids a discussion of the subject, we can only state our opinion, and that is that chemistry should be preceded by physics, and where it can be taught for only one year it should be presented in the fourth year of the high-school course.

One other condition deserves some attention, and that is the proportion of time devoted to the different phases of the subject. How much should one attempt to give the student? Where should the principal emphasis be placed?

Should an attempt be made to cover in a very elementary way the entire ground of general chemistry with a dash of organic at the close, or should only a small part of the subject be attempted and that taught thoroly? This last question was discussed at your meeting last summer. If all students taking chemistry in the high schools are preparing for college, then it seems that the position taken by Professor Williams in his discussion of last year is a very tenable one. In the first place, the student should be taken in the high school just as thoroly as he could be taken in college, over as much ground as the time allotted in the high school will allow; and, in the second place, the chemistry course in the college should be so modified that on completing his preparatory work the high-school student could continue his work in chemistry without having to repeat what he has already done. It seems to us that when all of our secondary schools become as thoroly equipped as many of them now are, this adaptation will logically follow. Suppose all students taking chemistry in the secondary schools are not prepared for college, what then? Will not this position still be tenable? How much chemical knowledge will the average student possess two years after his high-school course, if he has not continued the subject? Is not the value of the chemical course to be found in the training received rather than in the knowledge acquired, and cannot this training be given better in the teaching of the first half of elementary chemistry thoroly than in the teaching of the whole of it superficially?

Granted that this question be wisely settled; granted that the ideal conditions for the teaching of elementary chemistry be fulfilled; granted that we have a well-trained teacher and enthusiastic worker, that we have a well-equipped laboratory, that we have made the proper adjustment of class work to laboratory practice, and that we have selected the proper place in the high-school course, what may we expect the student to receive from his elementary chemistry? Here we must not let our enthusiasm run away with us. We must not be of those who seem to feel that the salvation of the world depends upon a knowledge of chemistry. That chemistry should have a place in our secondary education we firmly believe, but the thought of its taking the place of other subjects we do not for a moment entertain.

We believe that the following results may be expected from the teaching of chemistry in our secondary schools. The subject will not fail to awaken interest on the part of the student and stimulate keenness of observation. It is surprising to note the number of things that a student fails to see in his first experience with the subject; it is equally surprising to note how acute his power of observation becomes when he is led step by step by the proper application of the laboratory method. It is a genuine pleasure to stand by a student at the laboratory desk and, after a few questions, watch his face brighten up as new phases of the subject present themselves and new phenomena are suggested. It does not require many weeks of this personal contact of teacher with students to make the student himself a questioner. Nor are these questions of the nature of doubts, but they are questions that

prompt an eager quest for the truth; they are questions that enliven the imagination, that quicken the understanding, and that lead to enthusiastic endeavor. Surely with a year of such work the student must show some intellectual progress.

High-school chemistry will teach a student accuracy of expression. There can be no juggling with words in expressing a scientific fact, and clearness and accuracy of expression follow keenness of observation as the day the dawn. And when a student masters well these two habits—the habit of seeing things as they are, of seeing things in their true aspect, of looking accurately into details, and the habit of expressing accurately what he does see—he has taken a long step in intellectual development, a long step in equipping himself for the mastery of his environment.

Furthermore, the study of chemistry will cultivate the student's analytic faculty; it will teach him not to be contented with what may be seen on the surface of things, but to pick things to pieces, to decompose them, to get at the heart of things. It will also teach him the habit of weighing evidence, of balancing one thing against another, of testing statements, of proving things. The cultivation of this faculty is not limited to the sciences, but there is in science, and especially in chemistry, a very great factor for its development.

But chemistry is not only a science that tears down, it is also a science that builds up; and the synthetic phase of chemistry is one of its most important phases. It is in the chemical laboratory that a student acquires the constructive habit. He learns to appreciate the full meaning of the phrase "mastery of forces," and learns, too, its broader significance in relation to the affairs of life. The conception of an ideal, the comprehension of the full significance of that ideal, the apprehension of the forces that make its attainment possible, the mastery of these forces, with the eye ever on the ultimate end, with a full grasp of the meaning of the whole process—is not this the very essential of a successful life? How important that a student should acquire at an early age the synthetic instinct! And why not develop this instinct in a chemical laboratory?

But our high schools must do more than train the mind; they must also reach the heart. Education is the building of character, and we believe that high-school chemistry may be made a very effective agent in this direction.

The student will often fail in his experiments, and will leave the laboratory much discouraged and thoroly disgusted with himself; a watchful teacher will use these failures as opportunities of encouraging the student in the cultivation of two important elements of a strong character—patience and self-reliance.

Again, no man can be a scientist who is not a lover of truth; the careful teaching of chemistry—and this is true of other sciences, for that matter—cannot fail to increase the student's regard for truth.

Furthermore, a course in elementary chemistry cannot fail to impress the student with the beauty and the grandeur of the material world and its won-

derful adaptation to the needs of man. This should tend to the cultivation of two qualities very essential to a noble character—a becoming modesty and a genuine reverence for an all-wise Providence.

Finally, chemistry is intensely alive; it is a growing science, and its applications are so varied and so marvelous that even a glimpse of the subject, with a sketch of some of the heroes of the science, cannot but give a student ambition and incite him to noble endeavor.

DISCUSSION

H. A. Senter, head of chemical department, High School, Omaha, Neb.—The greatest factor in school or college, without question and without regard to the subject taught, is the teacher. The value, therefore, of any subject to the pupil depends largely on the teacher, especially at the stage of development such as is found in pupils of high-school age.

This is especially true of chemistry. This science is so broad, and all its various parts so closely in harmony, that one cannot teach any part understandingly, even in the most elementary course, without having an extended and thoro course in the whole subject. No one should attempt to teach the subject to beginners—the most critical and important of all chemical teaching—without having a thoro and extended course in general and qualitative chemistry, a course in quantitative analysis, and at least one year of organic chemistry.

The need of the high school, in all subjects, is more thoroly trained teachers, who are willing to devote their entire time and all their energy to teaching, and who intend to make this their life-work. Teachers of this class are on the increase, and boards of education, fortunately, are beginning to recognize and encourage such by making high-school positions as dignified and as remunerative as those of colleges and universities.

The outlook, with respect to developing better teachers for high-school work, is very encouraging and promises much for the immediate future.

In the teaching of chemistry, next to the personality and training of the teacher is the equipment for lecture and laboratory work. Wherever chemistry is taught there should be an unlimited supply of all necessities, in the way both of apparatus and of chemicals. Utility should be the first consideration in the selection of these, and economy should be the watchword in their disposal. A chemical department developed on these two principles, utility and economy, will lead any board of education willingly to grant luxuries in the way of lecture apparatus from time to time, at the suggestion of the teacher.

These luxuries, however, should always be secondary, especially when the department is new, and at all times should be sacrificed when necessities are needed.

As to the laboratory itself, it is unfortunate that in most cases it has been modeled after college laboratories, excellent in their place and suitable to college conditions and requirements, but not at all adapted to high-school conditions. This, of course, was natural, because most of the high-school laboratories have been built by college men, usually before they have had sufficient experience in high-school work to be acquainted with the actual existing conditions there.

I believe we are on the eve of a radical change in the arrangement of the chemical laboratory. The high-school chemical laboratory should be arranged and adapted to high-school needs and conditions. Simplicity and utility here, also, should be the guiding principles. It should be built to accommodate not more than thirty-two pupils at one and the same time, giving each a desk and uniform equipment. Each desk should be provided with as many sets of drawers as there are recitation periods in the school. Each

set of drawers should be of such size and shape as to accommodate the apparatus to be kept in them, and should be partitioned so as to make a place for everything.

The drawers should be provided with a series of master-keyed locks, duplicates being used on each individual set of drawers. Lockers and padlocks, high shelves, and all unnecessary projections and ornamentations should be abolished. The writer has during the past five years been looking forward to building such a laboratory adapted to high-school needs and conditions, and was recently given instructions to carry out his plans. The result has been very gratifying, and has called forth very high praise by all science teachers who have visited it.

The time given to laboratory work will vary somewhat with local conditions. In a small school double recitation periods can be devoted to this, but in larger schools this is almost impossible, owing to the difficulty in arranging the schedule. Here single periods must be the rule.

When pupils have two periods, the tendency is to lag somewhat, in the belief that there is plenty of time, and also to cause confusion and disturbance and waste of time by visiting and talking. With one period, the pupil realizes that he must make every motion count, otherwise he can accomplish nothing; and in a month or so he learns to plan his work to better advantage, learns to put all his energy into the task in hand, and soon realizes that it is a waste of time and energy to talk and visit while working. The motto in the laboratory should be *work*, with absolutely no communication whatever. If carried on in this way, the laboratory develops that power to do work which is so lacking in most pupils of high-school age, and teaches independence, confidence, and self-reliance—the ability to do things.

If the work is systematically laid out beforehand, and properly directed by the teacher in the laboratory, as much work can be accomplished in three single periods as in two double ones. The rest of the time should be devoted to recitation, reviews, and lecture experiments and explanations by the teacher.

Because of its wider general scope, and more universal application to our everyday life, physics came into our school system long before chemistry Of the relative value of the two, to high-school pupils it is by far the most important; and when only one can be taught, it should unhesitatingly be chosen. When both are taught, it should always precede chemistry.

Because "the study of chemistry is the key which unlocks the door into a great wealth of hitherto unknown facts, and which seems to me opens up a greater storehouse of knowledge than any study taken in the high school," it should be placed in the senior year, following physics of the previous year.

The study of chemistry in the high school, under a thoroly trained teacher, with the aid of a simple, practical, well-chosen equipment, by means of lecture experiments, laboratory work, and reviews, should develop the habit of rapid, independent, intelligent, and accurate work, should cultivate patience and self-reliance, and should open to the pupil, just as he is nearing, in the majority of cases, the end of his school days, a view of that minute, perfect, harmonious working of the Creator everywhere in the world in which he is about to take an active part.

THE TEACHING OF THE SCIENTIFIC METHOD

S. A. FORBES, DEAN OF THE COLLEGE OF SCIENCE, UNIVERSITY OF ILLINOIS

Along with the existing movement to make the study of nature more natural has lately appeared an equally significant movement to make the study of science more scientific. The former movement affects especially the primary

and the elementary schools; the latter, the secondary school and the college. It is the object of the former to enlarge, to refine, and to vivify the personal experience; it is the object of the latter to organize experience into forms effective for future use. Nature study may thus be said to sow the seed from which the study of science cultivates the crop, and, in due time, reaps the harvest.

The method of assorting and generalizing the data of experience by means of which the average man is able to apply the lessons of his past to the conduct of his future is simply a crude, wasteful, and slipshod form of the method by which the data of science are organized in the process of scientific discovery. The method of science and the method of life are essentially the same, and a practical command of the scientific method is an important part of the preparation for life. This movement for the improvement of scientific instruction is thus a part of the more general movement to relate the work of the school more closely to the life of the community.

It is as yet, it must be admitted, in its initial stages, so far as its effect on the actual teaching of the average school is concerned, and it is with the hope of doing something to help it forward into practical operation that I have undertaken to discuss here, very briefly and in a general way, the method of the physical sciences, together with the modifications of that method characteristic of the several sciences, as related to the work of the teacher in the secondary school. I have chosen this topic because it has often seemed to me that the facts of the sciences, the multitude of objects with which they have to do, the varied apparatus which most of them bring into use, and the interesting mechanical processes involved in elementary science work, often exercise a kind of fascination over the science teacher, engrossing his interest too largely, to the partial neglect of the mental methods to which these facts and processes owe all their truly scientific character.

The physical sciences—chemistry, physics, astronomy, geology, biology, etc.—do not agree in their methods in all respects. The method of chemistry is so different in some particulars from that of physics that one trained in chemical methods needs much more than a mere knowledge of the facts of physics to become a physicist, and no training in physics with chemical knowledge superadded will make an expert chemist. A man may never be so much a chemist or physicist or both, but he cannot then become a competent biologist by merely learning any number of facts about biology; he must still have his training in the special biological method. But notwithstanding minor diversities in the methods of the separate sciences, there are certain main features common to them all which may be abstracted, generalized, and stated in comprehensive form; and these constitute what we may call the method of science, in our sense of the term.

But what shall we mean by "method" in this discussion? Not the mere use of tools of any sort, however complicated and valuable; not the manipulation of apparatus, or any form of mechanical operation on anything. Tools,

apparatus, and laboratory manipulations and experiments are helps to observation, indispensable often in the accumulation of facts, but they do not in the least help to organize the facts accumulated, or to reason on them when organized. The method of even physical science is indeed a mental method, and the study of this method is a study of the action of the scientific mind while engaged in the pursuit of scientific truth. The subject is thus not physical, but psychological, and the first question which we wish to find an answer for is: What are the general features of mental method common to all sound and successful investigations in the physical, or concrete, sciences? What are the steps or stages in the method of the scientific man engaged in the serious study of a new, difficult, and complicated problem.

Time is wanting for an analysis of details, and I must content myself with saying that the accumulation of observations pertinent to the subject in hand or the end in view, the classification and generalization of these observations, the framing hypotheses as to causes, explanations, and the like, from the materials thus obtained, deduction from these hypotheses, and comparison of the products of these deductions in every way possible with new facts till substantial certainty is reached—these are the general steps of the method of physical science. In practice, however, and in some of the sciences, this whole round is rarely followed out in full. Short-cuts across corners, abbreviations, or even omissions of certain steps of the process are often possible to the expert, who may see, as by a flash of judgment, whither an investigation is tending, and so jump to the point at once.

In physics or in chemistry a single observation or experiment is sometimes enough to suggest a hypothetic explanation which brings the experimenter at once to the verification stage of his inquiry. In many departments of science vast masses of material have already been accumulated, classified, and generalized in advance, ready for the use of anyone; and investigation in these departments may begin with imagined hypotheses, followed by verification thru experiment and by added observation. In mathematics especially induction was long ago practically completed, and the mathematician is occupied now only with deductive and verification processes. Physics and chemistry also have gone some distance on the same road, and general laws have been established in considerable number and of extensive scope, from which deductions may be made at once, and by reference to which new facts may be explained without the tedious preliminaries of extensive observation and repeated generalization. In the vast field of biology, on the other hand, full as it is of the most perplexing complications, few stable generalizations have as yet been reached, and there most students are still busy with the inductive side of the operation. They are working toward general propositions, while the mathematicians and physicists are working from them. Induction predominates, in short, in the more complicated—that is, the less developed—sciences, and the deductive method in those which are far advanced.

It is one of the features of the scientific method in biology that we are

obliged to depend largely on mere hypotheses, which cannot be strictly verified by crucial experiments, but which commend themselves to us merely because they accord with all known facts. If all the facts were completely known to us, such a hypothesis would, of course, be fully established as the final truth, but as the mass of pertinent facts is almost never wholly known, and as the appearance of one inconsistent fact would overthrow it, many biological theories must always be held subject to revision or abandonment.

The appreciation of these differences of method in the various related sciences is of great practical importance, since it is not an uncommon error to apply the method of one science in the field of another to which it is not appropriate. One trained mainly in chemistry, accustomed to infer with certainty the characters of a whole class from the results of an examination of his first example of it, knows little of the tedious repetitions of observation on multitudes of individuals and the complicated processes of generalization necessary to establish class characters in zoölogy or botany; and the mathematician, accustomed to go at once to his general principles as an unalterable point of departure, can scarcely appreciate the requirements of an investigator who must start from individual instances, with general principles as the halfway house to his goal.

These various steps and phases of the scientific method are all processes of which we make almost constant use, in some crude and simple form at least, in nearly all our thinking and in most of our intelligent active life. We begin to discriminate, to classify, to generalize, and to infer long before we have learned to read, and we never outgrow the necessity for the constant use of these intellectual processes until we cease thinking and acting altogether. Upon the thoroness of our command and the correctness of our use of them depend much of our happiness and most of our success, and a course of school training which does not take them into practical account is evidently deficient in an important element of that preparation for life which is the end of training and the object of the school.

Huxley taught that science is nothing but trained and organized common-sense, and the question, therefore, whether the scientific method should be deliberately used in science-teaching is a question whether common-sense should be deliberately organized and trained, or whether the ordinary man may be safely left to train and organize his common-sense himself. Now, I think that it is unquestionable that if the scientist needs to be trained in the scientific method, as so defined, for the fit performance of his labors as a scientific man, then the ordinary citizen needs it very much more for the fittest living of his ordinary life. The art of right and rational living is the most difficult of all the arts, and the most complicated and perplexing of all the sciences are those which underlie that art. The task of the investigating chemist in his laboratory, or of the botanist in the field, is simple indeed as compared with the bewildering difficulties which beset the father of a family, the citizen of a community, the voter in a democracy, the physician in charge

of the health and lives of hundreds of his fellow-men, the business man, whose transactions reach to the ends of the earth, and are inextricably entangled in every direction with the affairs of thousands of others, over whom he has little or no control.

We solve the great problems of practical life by the reference of particular cases, as they arise, to established and accepted general principles; by reference of them to ready-made generalizations drawn from our own experience; or by new judgments based on our general knowledge and on our previous acquaintance with similar instances; and hence we need for their solution not only a store of applicable general principles and much practice in their application, but the power and the habit also of generalizing our own experience accurately and holding the results tenaciously, and the habit of revising general notions freely in the light of new occasions. We need, that is to say, a thoro comprehension and a practical command of that method of assembling, organizing, and rationalizing facts of all orders which in scientific matters we call the scientific method. An example or two from practical life will illustrate.

In an ordinary minor medical experience there is involved a determination process; the assignment, that is, of a case of llness to its proper place in the classification of diseases, or the recognition of a pathological state by means of the visible and tangible characters which it presents, and the use of such remedial measures as have been associated in the physician's knowledge with this disease or condition. In more difficult or unusual cases there is a more definite reasoning from effect to cause, as the physician studies the various indications of physical disturbance presented by the patient and infers from them the precise nature of the existing disorder; and reasoning from cause to effect, as when the history of a case is analyzed and a selection is made from the various items of this history of those which there is reason to believe are causally connected with the disordered condition. A double hypothesis is thus framed, and upon it a program of treatment is based, involving the application of remedies and the removal of such causes as remain. This treatment is in the nature of a verification process covering the whole series of observations, and the course of reasoning following thereupon.

I well remember the discussion, in my presence, of a case in which I was deeply interested, by a friend and eminent physician, who was good enough to do his thinking aloud as he debated with himself concerning the cause of a group of rather puzzling symptoms in the case before him, and it would be difficult to devise a neater illustration of the practical use of the logical method of residues. Reviewing the list of conceivable causes of the observed effects, but eliminating them one by one because if existent they wou'd have been attended by other symptoms not present in this case, he finally had but one possible cause remaining, and upon this conclusion he based his treatment for its removal. He framed a hypothesis, that is, which was finally verified completely by the outcome of his treatment. The whole scientific process was

here excellently exemplified; and yet just where in all his ordinary educational experience, preliminary or professional, may the prospective physician now look with confidence for his training which he so clearly needs? It is the gist of my present argument that his education in the elements of the scientific method should be had in advance, at the expense of clams and earthworms, or, better perhaps, of beans and corn plants, and not in professional practice at the expense of the health and lives of men

And so a business man laying in his season's goods and affixing prices thereto, or the farmer in planting his crops for the year and deciding on the special treatment of his land, or in determining he kinds and amounts of his purchases of live-stock and the special ends to which they shall be fed, so far as he does not merely follow an average routine and take his chances on the outcome, must collect and compare and classify and generalize his facts, and reason to practical conclusions under the guidance of knowledge and experience previously acquired, and test these conclusions by the success or failure, greater or less, of his undertakings, and the profit or loss on his investments—all of which is obviously the scientific process, just as much as if these men were physicists or biologists engaged in origina research.

But it is not in these common practical pursuits that a usual reliance on the methods of science is most essential, for if one errs in such matters, his error presently betrays itself, and he corrects and refines his method the next time as a result of his unfortunate experience. It is in those matters of belief and practice whose results cannot become apparent to the man at the time, but only, perhaps, to his children or to his successors after he is gone; it is in those political and social theories which only the experience of generations and the ultimate welfare of nations can fully verify; it is in those subjects so complicated, and those series of happenings so variable, that human intelligence cannot trace connections of cause and effect with convincing certainty, that an unwavering adherence to a sure and sound method is absolutely indispensable. And most of all we need it where, unchecked by the outcome of experience, we are powerfully swayed by emotional motives, and are hence most likely to go far astray with seemingly complete impunity.

In short, in all one's personal activities, in his business and professional occupations, in his more or less speculative reflections, in the general ordering of his mental life, in all that pertains to him, indeed, which contains a rational element, the scientific method has its value and its use; for it is simply the method of right reasoning applied to matters of fact.

I ought at this point to recall the fact that the method of science is not limited by any means to the sciences themselves as commonly so called, that is, to mathematics, chemistry, physics, biology, and the like. The facts of history may sometimes be causally explained, and the explanations given may be verified by deduction, altho not by experiment; and the parts of speech are classes, and the rules of grammar are generalizations, as strictly so as are the laws of nature.

Many words are highly variable in their meanings, and the choice of meaning for each is finally determined in translation by the general significance of the sentence as a whole. That is to say, hypotheses are framed as to the precise meanings of single words, and these are tested by the results of the effort to combine these hypothetical interpretations into a single whole; which combination again has often the nature of a hypothesis, to be tested by its capacity to fuse with other sentences into a connected and rational statement or discussion.

But the analogy of this linguistic process to that of the scientific method must not lead us to conclude that the one may be substituted pedagogically for the other; that if one is trained in language, training in science is unnecessary. If these resemblances really amounted to virtual identity,then we should find that good linguistic and good scientific ability go always together; that the successful student of Latin would need only biological information to become a good biologist; and that the capacity for scientific study regularly increased with one's experience in the study of language. In truth, the methods of language and of science are so different in some details that it is at least an open question whether exclusive training in one does not tend to unfit for success in the other. The linguist depends mainly on his memory for the primary data of his translation, while the scientist must depend mainly on his observation for the data of his inductive research. The use of the one method calls especially upon the verbal memory, and that of the other on the power of observation. The linguistic process deals always with extremely similar data—the meanings of words, easily obtained in a perfectly uniform way—by the use of a dictionary; and it deals with these data by an unvarying operation—that of linguistic interpretation and construction—which thus tends to become a stereotyped habit of mind.

The data of physical science, on the other hand, are of the most varied character; they are nowhere assembled and organized for convenient search and rapid discovery; and the final test of their interpretation is not subjective reflection, but continued observation or experiment. Indeed, anyone who has seriously studied both a language and a science needs only to reflect on his own experience to recognize an enormous difference between the two disciplines.

But it is scarcely necessary, I am sure, to argue here that the sciences of nature have a value, especially in the matter of causal interpretation, which is unique and irreplaceable as a means to the end we have in view.

The doctrine is occasionally put forward that a good observer is necessarily a sound reasoner, and that, consequently, we need only teach a student to observe and the reasoning process will take care of itself. This doctrine seems to me, however, to be both psychologically and empirically false. Neither analysis nor self-consciousness permits us to believe that the mind acts in observation in the same way or to the same end that it does in inference,and, as a matter of fact, we all know that the reasoning power and power of obser-

vation do not necessarily go together. The acutest and best-trained observers I have ever known are the systematic entomologists, and yet, transferred to the field of experimental investigation in economic entomology, they are often singularly unsuccessful and unreliable, and seem in general no better qualified than ordinary, untrained men. We must all be able to recall instances of exact, painstaking, plodding laboratory workers whose manipulations, drawings, and reports were models of their kind, but whose powers of causal interpretation were embryonic, if not, indeed, abortive. It is the great reproach of much of our teaching that it tends to make just this kind of mental monsters.

Says Huxley in his after-dinner speech on scientific education:

> The great peculiarity of scientific training, that in virtue of which it cannot be replaced by any other discipline whatsoever, is this bringing of the mind directly into contact with fact, and practising the intellect in the completest form of induction; that is to say, in drawing conclusions from particular facts made known by immediate observation of nature. The other studies which enter into ordinary education do not discipline the mind in this way.

And now what may we say of the improvement of high-school work in respect to this subject of the science method? Can we, indeed, teach the use of the scientific method at all in the high school? The term has a formidable sound, but however collegiate it may seem, the thing named is in its simpler forms of kindergarten grade, and we have all noticed, no doubt, the essentially scientific inferences, sometimes amusingly shrewd, made by very young children. I happened to know two little ones, four or five years old, each of whom had spontaneously and quite independently thought out a childish theory of the origin of the wind. Seeing the trees always waving whenever the wind blew, and quiet when there was no wind, the conclusion was reached, as if by the method of agreement, that it was the waving of the trees which made the wind. Indeed, one of these little ones first betrayed his peculiar notion by asking for little trees to set beside his pond to make the wind blow on the sails of his toy boat; and the other—a young woman now—tells me that this childish idea remained so long undisturbed and became so firmly fixed that she still naturally thinks of the wind as coming from the trees. Now, I think that it would be safe to say that anything that children do so well spontaneously they can be taught to do much better; that is, at any rate, the kindergarten principle.

To some it may seem that this subject smacks too much of dry formalism to have any proper place among the enthusiasms of the young; but we may study form without real formalism, and some such study is helpful, is necessary even, if the best fruits of enthusiastic interest and endeavor are not to be thrown away. Literature without rhetoric, language without composition, history without reasoning and reflection, art without æsthetic principles, may be pleasing to the imagination, or inviting to the eye, but they are gelatinous to the touch; there is no progress in their motions because there are no bones in their flesh—and such as these are, so are the sciences without the

scientific method. It is worth while to study the structure of a language, for without this it is not a language, but only speech; it is worth while to learn the causal connections of historical events, for without these we have only narrative; and it is worth while to study the method of a science, for without the use of this it is not a science at all, but only facts.

If I may speak from my rather limited knowledge of the usual preparation of science teachers for the secondary schools, I should say that it would perhaps improve the high-school work materially if every such teacher should have or get a fair working knowledge of the science of logic, which may be called, indeed, the science of the scientific method. One might almost say that it is only in scientific studies that logic has any important application in a college course, and yet it is still taught more generally, I think, from the philosophic standpoint than from the scientific, and is taken more commonly by literary than by scientific students. If taught without reference to the sciences, logic is left in the air, an academic study merely, pursued by itself and to its own ends, and with no very definite utilitarian outcome; while, if taught with reference to the sciences, it becomes one of the most useful subjects of a college course.

Then, in each separate science—chemistry, physiography, biology, and the like—the distinctive features of its characteristic method should at some time be brought clearly into view and compared with the characteristic methods of the other sciences, so that the student may learn to reason broadly on topics of any class; and this should be done, I think, thoroly, and as a matter of the highest interest, at the sacrifice, if necessary, of some details of fact and some niceties of instrumental manipulation. Anyone would rather that his boy should know how to think clearly and correctly, and how to tell when a thing is proved to a certainty, than that he should have a little more knowledge of the facts of physics or geology at his immediate command. Indeed, I would make the general principles and the characteristic features of the *method* of physics or chemistry or biology as clear to the student and as definite as the *principles* of these sciences, and would develop in the course of my instruction the *general method* of science with as much care and fullness as I would any *scientific principle or law*. Especially I would see to it that suitable opportunity is found or made for thoro training of a practical sort in the various kinds and forms of the *inductive search* for truth; for without inductive teaching we entirely miss one of the chief values of a science course, and the one thing in it, I think I may say, of the greatest practical use.

We must also recognize a highly important difference between inductive operations performed on like and unvarying data—such as those of physics and chemistry, where one specimen of a class or one instance of an action is as good as more, since we know in advance that all are practically alike—and those performed on variable objects like living animals and plants, where no two are exactly similar, and all are peculiarly sensitive to the modifying influence of an immense number of variable and constantly varying conditions.

I would further make too plain to be misunderstood by anyone, would impress so forcibly that it may never be forgotten, the vital difference between an unverified hypothesis, or a plausible interpretation, and a hypothesis verified by experiment or converted into a complete induction. The history of science, the history of every department of research, is strewn with the débris of hypotheses once acceptable because accordant with all the facts then known, but since tumbled to ruins by the touch of some discordant discovery. On the other hand, I would not permit a student to derive from his scientific studies the idea that only the certain is deserving of belief. The rashness of ignorant credulity is often better than a hidebound skepticism.

As to the methods of procedure and materials for the work I only venture to suggest that the primary requisite is a copious and varied list of problems for individual solution, mainly by inductive reasoning from the student's own observations and experiments. The especial purpose should be, I think, to illustrate and establish the inductive method with materials of various kinds, beginning, of course, with easy observations and experiments which lead to certain conclusions, dealing later with variable data to be treated by the method of averages and the estimation of probabilities. The subjects proposed would thus be such as to familiarize the student with the various logical methods, not by name, but by actual use, and he should come to understand their relative values and the ways in which each may be made to supplement another. For a supply of such problems good text-books will be of use, but the literature of investigation must be searched, where an abundance of problems may be found capable of such simplification as to bring them within the reach of the student's capacity and the conditions of the school.

It is not expected that all inductive generalizations should be arrived at by induction. A law may be stated and illustrated, and verified either by experiment or by a history of the method of its discovery, but it is not always necessary, either to its comprehension or to confidence in its truth, that it should be developed from the pupil's own experience. It is important, however, that varied and abundant practice in induction shall be had to the end that the student may thoroly acquire the art of inductive inference.

The sum of what I have felt impelled to say this afternoon is this: that our science-teaching may be materially strengthened and made practically far more valuable if we will give much more attention and thought than hitherto to the rational action of the mind in science work, especially in the matter of inductive inference; if we will bestow as much care, ingenuity, and skill upon the selection, adaptation, and arrangement of materials for the training of the mind in the processes of logical reflection on the products of experience as we have heretofore used in equipping laboratories and in teaching our students how to observe, to manipulate and to describe.

NATURE STUDY AS AN AID TO ADVANCED WORK IN SCIENCE

E. R. WHITNEY, VICE-PRINCIPAL AND HEAD OF SCIENCE DEPARTMENT, HIGH SCHOOL, BINGHAMTON, N. Y.

Nature study has most ardent advocates. It has also scoffing doubters, who dub it a fad soon destined to disappear. The science teachers in secondary schools and colleges have, for the most part, held aloof from the controversy, letting the advocates and opposition combat alone. Their position has not been one so much of indifference as it has of placid, deferred judgment. Nature study has now been a corporate part of the elementary schools long enough for its results, either for good or for evil, to become apparent in secondary and collegiate institutions. Circular letters addressed to representative science teachers in high schools, normal schools, and colleges brought back replies from which several general conclusions are evident. To many of these teachers nature study seemed to include all sorts of work, most of it enthusiastic. By others, nature study is understood as an introduction to the elements of physical geography, botany, and zoölogy, systematically planned.

The normal schools generally receive three classes of students. Some are fresh from the country, where the environment for the study of nature is splendid, tho usually such study is deficient in guidance. Other students are from the city and village schools. The third class is from their own training schools. The evidence is overwhelmingly in favor of the superiority of the country students. The training-school students who have had some instruction in elementary science take second place. The testimony of the normal-school science teachers may fairly well be represented by this from one of them:

> The students of my classes, barring a few from the country and those from our training school, are nearly destitute of any knowledge whatever of the things which every country boy knows when he is ten years old. A few know two or three trees; most know but a few plants, and practically no wild animals or birds at all. Their minds are blanks so far as nature is concerned.

There is not the same unanimity of opinion among high-school teachers, but there seems to be an undertone of complaint that nature study, where attempted, is not given its full share of attention. In some localities the grammar schools pretend to give a little nature-study work, but it appears to be in such homeopathic doses as to have but little effect on high-school science. It is true that the high-school science teachers of many cities most highly indorse the character and results of the nature-study work done in the grades.

A careful investigation of the apparently divergent views of the high-school science teachers makes apparent why nature study fails in one locality and succeeds in another. It is largely a matter of the teacher's preparation, opportunity, and intelligent supervision. Nature study is perhaps the most difficult subject that the elementary school has to teach. It requires the keenest enthusiasm, combined with a breadth of knowledge and a fine art of

teaching. Then, too, the city school machinery is often far too inelastic to permit the freedom necessary for excursions, gathering of material, etc. Usually there is no special teacher of nature study, and the average science teacher is too busy in his own department to lend aid, and so supervision goes by default. Only one of the correspondents would prefer students to come to him without any previous instruction in nature study. He says that he "does not think that teachers of nature study, equipped as at present, can do much damage, except to give a lot of false notions about flowers talking and thinking."

There seems to be a general agreement that in botany, zoölogy, and geology it is of immense help if the pupils know the names of the common outdoor objects, and that it is often quite useless for the science teacher to cite examples from the locality because the pupils lack fundamental acquaintance with even the most common things. As Professor Hodge says: "They are tubs without bottoms."

Only the highest words of commendation can be spoken of the admirable work of the state agricultural experiment stations in issuing, free for the asking, splendid nature-study leaflets and magazines on elementary science adapted for home study and for use by school children. These are of great help to the teacher whose time is limited. As a direct result of this campaign, schoolgrounds have been beautified, children's gardens have been planted, school and home museums have been established, and a lively interest in nature has been evoked. Experiment clubs have been formed that tend to keep alive the spirit of inquiry.

Nature study prepares a fertile soil for advanced work in the biologic sciences, and for physics and chemistry as well. No child can study, even in the most simple way, a plant or an animal without getting some notions that will contribute effectively to these subjects. As Dr. Hallock of Columbia says:

> How can a child understand properly the function of the roots and sap and leaves without knowing some of the principles of solution, capillarity, and evaporation? I believe that one reason that the teaching of chemistry and physics is not more effective is because this purely elementary material has not been presented in the grades.

A brief grammar-school course in physics, dealing with some of the simpler principles, may be a great help. Some of the qualitative and to some extent spectacular experiments dealing with osmose, diffusion, cohesion, and most of the physics of the air, together with the plain phenomena of magnetism, might readily be introduced. If desirable, metric measurements might at the same time be used.

Physical geography, usually a first-year science subject in secondary schools, is largely a question of physics and geology. Its underlying scientific principles are few in number. If early and gradually introduced, the ideas of pressure of the air as manifested in the siphon, pumps, and the like, the distribution of heat, and the attraction and repulsion of magnets, are

made more sure of being understood than if dealt with all at once. How easy it is to teach the names and properties of the common rocks and minerals. Once their interest is aroused, pupils find new treasures in every stone building, sidewalk, river side, and embankment.

The sooner these ideas are incorporated in the life of the child, the better; for such ideas are of slow growth and lead to larger views and interests. Pupils who early get near to the heart of nature generally retain that love all their lives. Each expansion of the mental and spiritual horizon brings new delights that are more keenly appreciated because the better apperceived. All knowledge helps in the gaining of new knowledge. Nature study, aiding so directly, as it does, in observation and deduction, is thus a decided help in the higher work of science by becoming a link between the abstract and the concrete, and showing the bearing of abstract principles upon human life.

What shall be the product of nature study if it is to be effective in science work? Should it simply dull the keen edge of curiosity that is in every child? Children's interests in the phenomena of nature is enormous. It is paramount to most other interests. Inherent and spontaneous as it is, why not utilize it to the utmost? School routine may dull or even obliterate it. Even nature study, improperly taught, may deaden it so that it can scarcely ever be revived in the high school, normal school, or college. Nature study has this one great end to accomplish, viz., "to keep the tentacles of inquiry functional" until the time for more solid science instruction begins. If this is done, nothing at least is lost. But a far greater end is the deepening of the interest so early and so strongly manifested by the child; and if this is accomplished, we shall have a class of students who know the trees and common plants, birds and insects, and have learned enough to want to learn more about what they do in the economy of nature. The science teacher need not then be obliged to teach the difference between a moth and a butterfly, or a cottonwood and a whitewood, or that angleworms do not rain down.

Pupils who have a smattering or fragmentary knowledge of odds and ends of science, which is so often advocated as nature study, think they know it all, and are a very trying class to instruct when real science is begun. "Some young folks," says Dr. Bigelow, in the *St. Nicholas Magazine*, "take nature study just as they take the measles—nobody knows where they got it, but it is none the less effective." Emerson has truly said: "The best part of a body's education is that which he gets to and from school." Nature study must, if it is to be of higher service, beget the ability to see things, to draw correct conclusions, and, more than all, to bring about a desire to know all possible about natural objects and phenomena. When this is done it will cease to be, what Dr. Coulter so aptly calls it, "the joke of the scientific fraternity."

It is not desired that nature study should in any way lessen the time devoted to secondary or collegiate science instruction. It would simply deepen the course. If nature study is to be taught by gushing and emotional

enthusiasts, who, lacking depth and breadth of training, endeavor to interest by liberal injections of myth, legend, and the imaginative, thus sacrificing truth, accuracy, and the scientific spirit, it is better not to attempt it at all.

Worse tho than the gushing teacher is the mechanical one who kills interest. A short time ago I was visiting in a city in a noble state noted for its high standards set in educational matters. Knowing that nature study was one of the subjects set down in the curriculum, I asked a young A seventh acquaintance what he had learned in nature study. He replied that somehow his grade had been omitted in the teaching of this important subject, but that the B seventh grade recited in his room and that he had learned all they had been taught. He said: "Well, I have learned all about twigs. If a twig is one year old, it has a bud on the end; if it is two years old, it has buds on the sides." I asked him how this startling information was imparted. He said: "Why the teacher wrote it on the blackboard, and the B seventh copied into their notebooks, and so I did the same." Alas! how true are the words of Agassiz: "Pupils study Nature in the schools, and when they get out of doors they cannot find her." Such nature study is worse than worthless; it is positively damaging.

To be well qualified to teach nature study with success, there must be more than a passing acquaintance with all the sciences. The teacher should be resourceful in finding and adapting material for the work, and have a true love for animals and plants leading to first-hand knowledge of their ways; and, lastly, have tact in interesting others in the work. The main object is to excite wonder, and at the same time instruct the children in some of the common facts of outdoor life. The teacher must have sufficient time in which to organize excursions, obtain specimens, and carry on the work. The demand on the teacher of nature study is really greater than it is on the high-school teacher of science, for the nature-study teacher must not only have a scientific basis for the work, but must teach a greater variety of subjects that serve as starting-points for a lifelong interest in them all. Her chief emphasis is on the love for nature, rather than for the study of technical details.

One summer in the country, where one may watch the swallows in a country barn, observe the lazy blue wasps and their peculiar nests, see the bees swarm on a hot summer's day, note how a thousand and one new and yet common events take place, will do more for the average city boy or girl than tons of talk on nature study in the schools, unless very properly conducted.

Nature study has large claims. There can be no doubt that a genuine love for nature aroused in the elementary school begets a longing and a liking for advanced science. Relate the pupil to his surroundings. Get as many new sensations and as many different views of the lives of other living things as possible. Somehow the impression is prevalent that the schoolbooks are not connected with real life. Then, again, nature study paves the way for the laboratory method. Simply handling specimens may not have much value so far as manual training is concerned, but it is observed as a marked

trait among pupils in zoölogy that the ones previously trained in nature study do not hesitate to take up any work or objects and see n them familiar interests; their minds are not filled with ideas of how ugly they are, or how disagreeable to touch; these points have been answered and settled.

Nature study is strictly pedagogic. It conforms to the pedagogical conce tion of the first presenting of a new subject under large headings. It is letting the idea of the whole precede that of the part. As Bailey truly says:

> The child is first interested in the whole plant, the whole bug, the whole bird, as a living, growing object. It is a most significant fact that most young children like plants, but that most youths dislike botany. The fault lies neither in the plants nor in the youths. A youth may study cells until he hates the plant that bears the cells.

This is because the natural order of interest has been reversed.

While it may be that it is only the very small children, in the very large cities where access to the country is difficult, who believe that butter grows in buttercups, or is made from a special milk called buttermilk, and that angle-worms, which are nothing but small snakes, rain down with the thunder, yet misconceptions not unlike these are very common in pupils taking up the study of science in secondary school and college.

If a durable structure of zoölogical science *must* be erected in the short period of twenty weeks, as is so often required, there is no time for laying a sure foundation. That must have been taught years before. This is the case with the country-bred pupil. He knows the haunts and homes of the bumblebees, and the taste of their honey—and, alas! their sting. He is seldom fooled by the catbird's call. He understands some of the secrets of the martins, the chimney-swifts, and the owls. He knows that the henhawk's watchful eyes are swift to grasp opportunity in the chicken yard. Not all of his knowledge is accurate nor even broad, but he has experiences that are beyond value. He has seen bats feed. He can tell you where to find turtles. He is a local authority on birds' nests and nesting habits. He has caught grasshoppers and studied them long before he ever dreamed of entering a zoölogical laboratory. The codling moth, the tent caterpillar, the cutworm, the Colorado potato beetle, and the Hessian fly are not unfamiliar objects. Is it any wonder than when he begins the study of zoölogy his teacher finds him appreciative, always ready with illustrations, and often with personal incidents, unless his modesty prevents their relation? For him zoölogy has additional æsthetic, economic, and moral values. It broadens his sympathies and furnishes him with lifelong pleasures.

In the study of plant life, as in that of animal life, there should be a constant endeavor to work along two lines—viz., (1) make clear the effort for self-preservation of the individual, (2) its consequent perpetuation by reproduction—and lay particular stress upon the devices for attaining these two purposes. Nothing is more fascinating to children than the warfare of plants against their enemies. The means of protection, extremely interesting to adults, are to them simply wondrous. Their sympathies are aroused in

favor of the apparently helpless and immovable plant, and they rejoice that, while it may not act offensively, it remains a citadel not easily stormed. For them the wonders of plant life reach the maximum in cuttings and graftings, and in the methods of seed dissemination. Perhaps their curiosity leads them to experiment on home trees and house plants. Give the child a garden of his own, and he will learn many practical lessons in botany that will serve as fundamentals in his science course in later years. Check lists of the wild flowers, with date of finding, name of locality where found, and name of finder, properly recorded, help in starting herbaria.

Who can measure the value of field excursions as ground work for subsequent science instruction? The joy of finding a bubbling spring in a shadowy glen, the pure delight of suddenly coming upon a vision of a sheltered valley appearing thru an opening in the trees, are experiences that live in the heart, always forming settings for any and all the gems the science teacher may produce. Is it not worth while to experience the dense forest with its inviting cool, its impenetrable gloom, its awful majesty, and its rustling, reverberating sounds that bring mystery and fears? No other sensation is comparable to it. It is one of nature's choicest allurements. Its value is beyond estimate in giving an æsthetic imagery—a background, if you please—to class-room instruction on the homes, haunts, and lives of living things.

No study pursued in the elementary school can be of more direct aid to earth science and to the biological sciences than nature study, which teaches the pupil to gather knowledge first hand, trains so certainly in observation, develops the power of discrimination, leads to a capacity for concrete and abstract analysis, and at the same time is capable of giving a lifelong joy in the appreciation of the ever-changing panorama surrounding us.

DISCUSSION

Otis W. Caldwell, professor of biology, Eastern Illinois Normal School, Charleston Ill.—In one of the preceding papers is the statement that "the art of right and rational living is the most difficult of all the arts, and the most complicated and perplexing of all the sciences are those which underlie that art." Now, all the people practice this art of living in varying degrees of devotion and intelligence; consequently all are engaged, consciously or mechanically, in "the most complicated and perplexing of all the sciences." The low degree of devotion and intelligence with which the art is practiced by the larger number of people furnishes us with an explanation of the facts that so few recognize the possibilities of the science, and that so many faulty conclusions have been formulated within it. The general method of procedure of the student engaged in one of those fields usually included in the term "science" is the thing that will give the greatest assistance to those engaged in this larger field, and suggestions calculated to enhance the teaching of the method of science with the people in general should receive more earnest attention from those engaged in the more technical aspects of scientific thought. The general method of scientific thought is usable in the various fields of human interest, each field necessitating special applications of the method. It is applicable in an elementary way to elementary thought upon various subjects, and is sufficient for use in the most intricate problems of a specialist.

If all the people might have suitable instruction in several formal sciences, the benefit to the practice of the art of living would be enormous, but such a condition obviously is not near at hand. Possibly when present opportunities for science are more judiciously used, thru the evidence of her fruition larger opportunities may come.

Notwithstanding the fact that elementary science should not be a formal presentation of any separate field of science, the scientific method may be taught with varying degrees of appreciation in any part of an educational system where any science work is done. The most elementary science, if properly presented, will develop a little of the method of science. It may be greatly limited in quantity, and in application may not be seen in connection with any phenomena except those immediately at hand. The method may not even be appreciated as being present, but such appreciation is not essential in order that it may begin to develop. The method of any subject is taught in the most fundamental and potent way when the subject itself is taught in the best way. Certainly in secondary schools and colleges some emphasis should be placed upon an understanding of the scientific habit of mind, but in lower work it would be futile to attempt this.

If so-called elementary science for grade work were more truly elementary science, and less legendary, mythical, imaginary, and impersonating, it would do something toward establishing some elementary notions of the scientific method of thinking; it would remove elementary science from its present position of well-earned disrepute; and would give it the support of science men—a support it can never have until elementary science is scientific in an elementary way; it would give grade pupils an opportunity of observing phenomena in the field of science—a field in which normally they have an active interest—and would teach them some of the ways of discovering truth.

In secondary-school science the logic of the subject should be observed, thus permitting the application of the method of science study along a given line of thought for a considerable period of time. The logic of the subject is easily seen in botany and zoölogy, whether they be organized from the point of view of their evolutionary development, or from that of their special adaptation to nutrition and reproduction. In the case of any formal science best results may be had when topic sequences are definitely related, rather than when consisting of isolated topics, more or less attractive, but not necessarily representing the science as such. To the claim that the latter plan is easier it may be said that less valuable results accrue, and it may be questioned strongly whether it is easier or more attractive.

It has been strongly urged that the purely inductive method of study should be kept constantly in mind, and with this I am essentially in agreement. But in many cases is not the verification method necessary to beginners? The processes involved in the study of any science are sometimes quite intricate. A law stated, then proved by experiment, confers scientific value, not of the highest order, but often necessary as a step toward employment of the highest order of scientific experiment. If sufficient experience has been had already to enable the worker to project such experience into new occurrences or new fields, the verification method should decline or disappear, and the inductive method should become predominant. In any piece of work assumption concerning the accuracy of preceding work must be made. These pieces of preceding work are not to be accepted in complete trustfulness, but must be questioned sufficiently to give assurance of their accuracy. The experiences of preceding workers must be reviewed in a scientific spirit. Where doubts arise, all workers must employ the method of verification. The worker has before him the stated conclusion of his predecessor, and works to see whether it be true. The ability to perform this work of verification involves the same sort of knowledge of the value of experiment and observation that will eventually enable the possessor to draw just conclusions from observations and experiences in a new field in which he does not have the guidance of the stated conclusion of a previous worker.

If the scientific method is to be taught by verification of details, each fragment of which is carefully stated and figured for the student, little of value will result, but the problem should be to see whether such proposition be true, not to see that it be true. If the

preceding work be exact and sufficiently extensive, the verifier will approach the same conclusions in proportion to the inclusiveness of his experiences and the accuracy of his judgments.

At this point it should be said that in order to verify well-known scientific facts the use of elaborate apparatus in the form of models, special preparations, and mechanical devices under the direction of an extensive laboratory outline quite often does less to confer the scientific habit of thinking than did the meager equipment and paucity of laboratory outline that prevailed when science was just beginning to come into her own estate.

In the attempt to remove from the student the necessity of rediscovering the entire known field of science he is sometimes left without the ability or inclination to discover any of this field. One needs but to recall the fact that some books highly recommended for science work are made up of outlines for laboratory work by students, and following the outlines on the same page, or at best the one following, are found full answer and discussion of each of the points the student is asked to investigate. There is so much solicitude lest the student should not learn promptly, and in some certain prescribed way, that haste is made to inform him before he has opportunity to investigate.

So much of a cry has arisen for the commercial, industrial, and technical that a considerable part of our system of education has responded to the demand for an education of early utility. There are a great many facts in the various fields of science that it is desirable for a student to know. It is not necessary for him to discover all of them by investigation in order that he may know them, but he must discover some of them in order to know and appreciate all of them. And he must obtain the mental discipline that will be of inestimable value to him if the scientific method of thinking becomes a working factor in the ordinary affairs of his life.

DEPARTMENT OF SCHOOL ADMINISTRATION

SECRETARY'S MINUTES

FIRST SESSION.—WEDNESDAY, JUNE 29, 1904

The department was called to order in the Hall of Congresses of the Universal Exposition at 2:30 P. M., by B. F. Hunsicker, president of the department, who read a paper on "Retrospective and Prospective School Administration."

William B. Ittner, commissioner and superintendent of school buildings, St. Louis, Mo., next read a paper on "School Architecture." Stereopticon views of floor plans, elevations, and perspectives, showing the later school architecture of St. Louis, were used in illustration by Mr. Ittner.

A paper was then read by Professor Calvin M. Woodward, president of the St. Louis Board of Education, on the "Lessons in School Administration Afforded by the World's Fair."

While the attendance at the meeting was fair, it was apparent that there was not a sufficient number of Association members present to warrant the election of officers. It was therefore decided that the present officers of the department hold over for another year, unless otherwise ordered by the Executive Committee of the Association. These officers were as follows:

President—B. F. Hunsicker, Reading, Pa.
Vice-President—Grafton D. Cushing Boston, Mass.
Secretary—William George Bruce, Milwaukee Wis.
Executive Committee—Harlan P. French, Albany, N. Y.; Albert Gehring, Cleveland, O.; Israel H. Peres, Memphis, Tenn.; Charles Holden, Grand Rapids, Mich.

A final adjournment was then taken in accordance with the plan to hold but one session of the department.

WILLIAM GEORGE BRUCE, *Secretary*.

PAPERS AND DISCUSSIONS

RETROSPECTIVE AND PROSPECTIVE SCHOOL ADMINISTRATIONS

B. F. HUNSICKER, PRESIDENT OF SCHOOL DISTRICT, READING, PA.

It is no easy matter to formulate into readable form all the tendencies in school administration. We are now in a time of transition, and to find even a general policy adapted to the country in general would set an expert to thinking. In this paper I can only give briefly my opinion of the past and present and what I believe possible in the future. As I already suggested, school government is constantly changing. Many things enter into a school policy,

and I will not try to formulate a policy, but present those tendencies in school government which are most significant.

A school board is a creature of the lawmaking power designed to do certain things, and it owes allegiance to this power. In the performance of its duty it comes in contact with other forces, and this creates other allegiances. Its duties in general may be divided into two classes—business and professional. On the performance of these duties hinges the history of American school boards. In the performance of these duties, the state, the community, the paid officials, the teachers, and the pupils all play a part. To know just how to keep all these varied factors in harmony is now, and I think has been, the mooted question in school administration. For a solution of the problem the past does not furnish much help. School boards have had nearly as much diversity in plan and policy as the number of such bodies will permit. In fact, outside of certain general regulations of a particular commonwealth, school boards have been regulated by the kind of men that have composed them. The personnel of school boards has been good, indifferent, or bad, according to the interest of the community in educational matters. The early history of the school board records little except a difficult task for existence. It was well satisfied if it could "keep school" with teachers who had sufficient muscle, sufficient influence, or could enlist sufficient sympathy to get the places. The school board, as a rule, wanted to be bothered as little as possible. In the course of time, however, as new issues arose, school boards found themselves confronted with various problems. This was too much for men otherwise employed and often with a mental equipment unable to grapple intelligently with the situation. This gave rise to paid officers such as secretaries, treasurers, superintendents, etc. Here again arose a contention as to what these officers should do and with what authority they should be clothed. This is now a bone of contention and promises to be for some time to come.

It is interesting to note the progress in school administration. The school boards now have a broader and a more intelligent attitude toward the state, toward the community represented, toward the officials, toward the teachers, and toward the pupils. They are relegating self-interests to the rear and legislating for the good of the pupils. They are beginning to understand that the state has committed to them a sacred duty, and the present tendency is in favor of doing that duty unselfishly and conscientiously. The vague relation between the lawmaking power and district boards is clearing up. There is less clash and more recognition of a common interest. Lawmakers legislate more generally than they used to in behalf of school districts and less in behalf of selfish interests. The past few years have been very encouraging, and a better spirit has grown up between these two factors in school government. In time the statute-books will largely reflect the sentiment of the people in regard to school legislation. There will not be complete concord, and there cannot be so long as people have different notions of education.

For instance, in Pennsylvania all do not believe in compulsory education; all do not advocate a thirteen-year school-age limit; all do not submit to vaccination. Many have different ideas of what shall be taught.

The law prescribes at least eight branches and names them; many might name others and omit some named, making a universal standard almost impossible, and yet with all this difference people are getting closer together on the subject. There is more consultation, more agreement to agree or disagree. The gathering of school-administration men—a thing scarcely possible two decades ago—is now not only common, but expected. Men by mingling grow more progressive, and more intelligent on school matters. A pronounced tendency in school administration, therefore, is the influence of representative gatherings.

In the second place, the school board and the community are on more cordial relations. With the gradual disappearance of uninterested, negligent, and selfish school boards the people at large are becoming more interested in school matters. The school directorship is a high and honorable position in which men have unlimited opportunity for work. People are beginning slowly to realize this, and the result is seen in more representative bodies. I think it matters little how many members compose a board or how it may be selected, but it does matter what sort of a community is back of a board. Generally, a board is representative of the character of the community. The people pay the taxes and support the schools, and they should be interested in the kind of schools that are kept. They should fully understand that the schools are a training for citizenship, and that the future of a community depends largely on the education of the children of the state. The past may have been one of indifference, depending upon the community, but the future promises to be one of interest on the part of citizens who have the welfare of the Republic at heart.

The third factor with which the school board deals is the pupil, and this is the principal factor, for directly or indirectly all legislation is for the pupil. In the early school, and in some schools of the present, the pupil was hardly considered. Little or no discrimination was used in the selection of teachers. The pupils studied whatever text-books happened to be in the family. The work of school boards was to comply with the law, so as to keep out of its clutches. There was little consideration for the pupil. There was no attempt at method, except as the teacher was conscientious or not in the discharge of his or her duty. A writer of early education well described the school as a life of "groans, tears, and blows." The present describes a different status. The slogan today is: "Adapt the school to the pupil." This is a complete revolution of affairs and has changed in a measure the whole school policy. The courses of study are now being changed to the needs of the pupils. This problem is not being easily settled, for persons differ in their notions of education. Some believe in a comprehensive plan, others in a limited plan; some urge a practical education, others only an intellectual, and still others would

combine both. There is much difference of opinion as to how our children shall be educated and what such education shall undertake. Amid many opinions school boards hesitate, falter, and sometimes fail. The tendency, however, is toward a plan, regardless of branches, that will develop the pupil for competent citizenship. Unfortunately, boards often lose sight of the fact that branches of learning are not the end of education, but only a means to an end. When once they fully understand the higher object of the common schools, this contention will end.

The next factor that demands our attention is the teacher. Here the tendency is very encouraging, looking not only toward a higher appreciation of the instructor, but toward a greater efficiency of the teacher. School boards did not, and perhaps do not, always employ teachers because of their capability, but because of sympathy or political motive. There has been a radical change in the teachers of the present and a half-century ago, and this is due to the fact that school boards understand more fully their responsibility. The demand is generally for teachers well equipped mentally, physically, and morally. The day is passing when the unfortunate and the unemployed are the natural teachers. The future school board will say that the natural teacher is the one who has natural talent and who has trained that natural talent for the work to be done.

The last factor I will consider is the most puzzling one, and that is the relation of the school board to its officials. How much power shall be retained by the board, and how much shall be delegated to paid officials? The present and the past experience of school administrations present types of two extremes. In the past school boards retained all power; they built schoolhouses, selected teachers, made up courses of study, when there was any; bought supplies; punished pupils; in fact, no detail was too trivial for the school director. The modern tendency is shifting to the other extreme, to make the school board a "dead letter" and delegate to a superintendent all the power over the teaching force, to another, over the finances, to another, over buildings, and so on. The future policy, I think, will tend to a course between the two. There are a business side and a professional side for the school board to consider. For the professional or educational side they must elect a superintendent of instruction. The duties of the superintendent have been a bone of contention. In some cases he has had much authority; in others, little. The plan that appeals to me is that the school board retain the veto power in all cases, but that the superintendent in educational affairs be the one to propose and to advise. I think that the superintendent will soon find his place, and if he is a forceful, tactful school man, little question of what he may do or what he may not do will be raised. The tendency seems along the line that the board retain the veto power and the superintendent be gauged according to his capacity and capability.

The same may be said of the business responsibilities of the board. School boards should keep creditable records and accounts; should have a correct

financial policy. While the school board need not create the policy, it should pass upon it officially. The state makes it responsible for the management of affairs, and it cannot, I think, safely delegate its power to some one else.

In properly maintaining the schools and caring for the physical interest of the pupils, the same policy should prevail. With the multiplication of duties and the necesssary repairs incident to the proper housing of pupils an expert carpenter or builder is necessary, but he should act under the authority of the school board.

The prevalent tendencies are toward a division of labor. Each year will bring about better conditions; school people are thinking and discussing. There is much agitation, but I think it is healthful agitation. I think it means improved conditions; it means a clearer demarkation of professional and administration factors, a more sanitary equipment for the housing of pupils and teachers, a better understanding of the requirements of the teacher and pupils, a closer sympathy with the people, and a more loyal relation to the legislative power. The horizon clears by the breaking up of the clouds, and it is the duty of the administrative department of education to help dissipate prejudice and ignorance—the clouds that mar the educational horizon, so that the future may develop a policy that shall realize the hopes of an enlightened and free people. To the accomplishment of this end you and I must devotedly lend ourselves.

THE SCHOOL ARCHITECTURE OF ST. LOUIS

WILLIAM B. ITTNER, ARCHITECT AND COMMISSIONER OF SCHOOL BUILDINGS, ST. LOUIS, MO.

Unlike most foreign and some American cities, the St. Louis Board of Education has not formulated a code of rules governing the planning and construction of school buildings, other than a strict compliance with the building laws of the city, which provide that buildings of this class shall be fireproof.

The effort has been to develop a plan in line with the best and most thoro development in school architecture; one that would insure improved hygienic conditions, and consequently preserve the health and morals, as well as promote the intellectual progress, of the pupils, and at the same time invest the buildings with that measure of architectural fitness now recognized as essential in training the pupils to an appreciation of the beautiful, during the most receptive period of life.

Before passing to the consideration of individual buildings, it may be well briefly to summarize the general requirements that have influenced the plan, design, and construction of the schools, which are of the grammar grade.

THE SIZE OF CLASS-ROOMS

The adoption of the almost universal rule advanced by experienced educators, that a class-room should accommodate not more than fifty-six pupils (the tendency being to reduce the number), forms the keynote to, and has largely governed, the planning.

Authorities agree that each pupil in the grammar grade requires a floor space of about 16 square feet, and 200 cubic feet of air space; it follows that a room approximately 25 feet wide by 32 feet long by 13 feet 6 inches or 14 feet high will give the required accommodation, admit of adequate lighting, and enable the teacher to control, by eye and voice, the pupils. With such a room as a unit, it follows that the architect should so dispose the rooms as to receive light in sufficient quantity, and render them easily accessible from stairways and corridors wide enough to permit rapid circulation of classes.

CORRIDORS

Another consideration that has influenced the plans has been the endeavor not only to depart from the conventional type of school building, wherein the central corridor lined with rooms on each side was necessarily dark, but to introduce, if possible, outside light into the main corridor in practically its entire length, thus insuring the penetration of sunlight to all parts of the building during some part of the day. This naturally led to a plan grouping the class-rooms on three sides of the corridor only, the remaining side being opened its whole length to the light.

WINDOWS

Since the success of the building depends upon adequate light of the proper quality, it naturally follows that the width, height, and location of the windows dominate the exterior design. In no case is the window surface less than one-fourth of the floor area.

As it is conceded that the maximum, if not all, of the light should come from the left of the pupil, and preferably from one side only, in order to avoid cross-lights, windows set 3 feet 6 inches above the floor, and extending within 6 inches of the ceiling, are located to diffuse such light. This fenestration is possible except in corner rooms, where small windows are introduced on one other side of the room in order that the design should receive fitting architectural treatment; it being manifestly impossible to locate desks in all rooms so that pupils will receive light from the left only, without inclosing the façade side of the room with a blank wall—something few architects deem essential.

GENERAL GROUND PLAN

The general plan developed by these rigid requirements is necessarily more or less similar in all of the schools, approximating in form to the letter E, except where kindergarten rooms are incorporated in the plan. In all cases the sites have been wisely selected to permit ample space surrounding the building; thus affording generous playgrounds as well as good light and air.

The basements average 13 feet in height (or a clear height of 10 feet under heating ducts) and have been planned with the view of supplying separate playrooms for boys and girls for use in inclement weather, accessible from out-doors, as well as affording space for the installation of the heating and ventilating plant, the storage of coal, and the general toilet-rooms for both sexes. On floors above the basement, corridors 17–20 feet wide afford direct communication to class-rooms averaging 25 by 32 feet in size, with ceiling 13 feet 6 inches to 14 feet in height.

Wardrobes or coat-rooms lead from class-rooms only (a radical departure from the usual custom of opening them upon the corridor, as well as the room, side)—an arrangement that not only gives the teacher full control over the class-room and wardrobe, but permits ventilation of the room through the wardrobe; the constant passage of air carrying with it the vitiated air from the room, as well as odors arising from damp clothing in the wardrobes, thus eliminating the disagreeable odor usually prevalent in schools.

Staircases are located at each end of the corridor, and also on the open side, which permit rapid egress. In no case has the height of the buildings exceeded three stories, the tendency in the later buildings being two stories, with a high basement entirely above the ground.

HEATING AND VENTILATION

The buildings have all been planned for a mechanical system, using low-pressure steam and a fan for forcing the air. This method insures—regardless of the state of the weather without, or the humidity of the air within—a positive flow of pure, warm air, at a uniform temperature, into each room, and a consequent outflow of a like quantity of vitiated air thru the wardrobe vents.

The system has been designed on the basis of supplying each pupil with 30 cubic feet of air per minute—an amount exceeded by 20–30 per cent. under actual conditions. This delivers to each room 1,800 cubic feet of air per minute, and changes the entire volume of air in the room every seven minutes, thus insuring the health and comfort of pupils, and rendering them capable of study and instruction.

This is accomplished with a steam pressure of from 5 to 15 pounds upon the boiler. The system is arranged so that the building can be warmed in mild weather by the exhaust steam from the engine that propels the fan (experience proves this is possible in our climate for about one-third of the heating season), thus effecting a material reduction in the consumption of coal.

Fresh air is drawn into the fans in the basement, usually from an elevation of about 30 feet above the ground, first passing through the tempering coils, where the temperature of the air is raised to about 65 or 70°. It then passes thru the fan to the heating coils, where its temperature can be raised to any required degree, and then driven thru ducts from the hot chamber to the various rooms and corridors.

The heating and tempering coils are arranged with a system of by-passes

and double dampers, so that the air may be taken from the hot chamber, or may be mixed with the cooler air passing beneath the heating coils, and so tempered to any desired degree. The system is, therefore, very flexible and capable of many combinations at the will of the operator.

The urinals have marble partitioned stalls, are automatically flushed the same as the water closets, and are vented thru an opening along the base at the floor. The vent ducts from water closets and urinals are connected with a heated stack, the fresh air, after making the circuit of the room, passing out thru the fixtures themselves thru these vent ducts and the stack.

EQUIPMENT

Class-rooms are equipped with natural slate blackboards set 1 foot 9 inches above the floor for the lower, and 2 feet 6 inches for the higher grades, and extending around the three inner walls of the rooms. The desks are of the single adjustable type, with aisles 18 inches wide between desks. A book-case, shelf, and wardrobe are provided for the teacher, and cases are placed in the library, kindergarten, and storerooms.

Drinking fountains are installed in corridors as well as in yards and basement. The walls are painted in appropriate colors, with a stenciled frieze, and a picture molding is placed at the ceiling line. The corridors are also treated in the same manner, and serve for exhibition of photographs and class work. Kindergartens are decorated with mural paintings typifying the life of childhood.

Each room has a self-winding electrical clock, regulated from the master clock in the principal's office. Artificial light is furnished by gas or electricity.

The grammar schools illustrated here will accommodate, including the fixed seats and kindergarten, 1,200 pupils. Their cost has been $105 per pupil, or $5,600 per class-room, or its equivalent.

BUILDINGS DEVOTED TO HIGHER EDUCATION

One of the buildings recently erected, and devoted to higher education, is the William McKinley Manual Training High School. The idea of manual training, like that of the kindergarten, had its first trial in St. Louis. Altho introduced by Professor Calvin M. Woodward in the Washington University in 1879, and not in the public schools, it has found its way into the curriculum of most of the public-school systems in the large cities of America. This idea of thus supplementing the work of the brain by the work of the hand has dominated the plan of this building, and will illustrate that idea of educational expansion which is one of the marked tendencies of our time.

The building is almost square in plan (255 by 253 feet) and of a much more complex nature than the schools heretofore considered. A central entrance, flanked by octagonal towers, is supplemented by side entrances leading to the main corridor, 20 feet in width, from which lead auxiliary corridors 8 feet wide.

On the first floor there are a class-room for forty pupils; a reception-room and principal's office; three laboratories devoted to the study of chemistry, physics, and biology, equipped for classes of twenty-four pupils, each laboratory having a lecture-room for forty-eight pupils; a teachers' laboratory; a storeroom for apparatus; and a dark room for photography.

There are two wood-working shops, 32 by 70 feet in size, one for carpentry, the other for wood-turning and pattern work, each equipped for twenty-four pupils and each having a wash-, locker-, and tool-room, as well as a storage- and stock-room.

To provide for the manual training of girls, two rooms are devoted to domestic science, with a small model dining-room adjoining, and one room for sewing; each with its storeroom.

The auditorium is entered from the main corridor on the first floor, and has a seating capacity of 736. The gallery is entered from the main corridor of the second floor, and seats 216 pupils. It has a large stage and two dressing-rooms; while coat-rooms are provided near the entrance to the auditorium, which is arranged and equipped so that it may be used for evening lectures.

The second floor has four 23 by 32-foot class-rooms, equipped for twenty-four pupils; four 28 by 32-foot rooms, for forty-eight pupils; and two 32 by 41-foot rooms, for seventy-two pupils. There is also a large room to be used as a library of reference.

The third floor has four class-rooms, equipped for sixty-four pupils, and two rooms for ninety-eight pupils; also a 23 by 64-foot room for free-hand drawing; a business room with necessary banking-rooms, offices, etc., each equipped for forty-eight pupils; a large room for stenography and typewriting, for twenty-four pupils; also a room for photography, with dark room adjoining.

The class-rooms were planned to enable the teacher to supervise the class at study, as well as to hear a class at recitation—an arrangement that obviates the necessity for large study halls used for study only.

When the central tower is carried above the third floor, it provides space for a mechanical drawing room 72 by 32 feet in size, equipped for sections of forty-eight pupils, with two storage-rooms and a room for blue-printing.

In the basement, adjoining the entrance vestibules, are located the central locker-rooms for each sex; small locker-rooms being also provided on each floor in order not to concentrate lockers in one location. Retiring-rooms adjoin the general locker-rooms.

The boiler- and coal-rooms are located outside of the main building. The heating and ventilating apparatus and the electrical equipment for supplying power to shops have been installed under the auditorium, where an amphitheater seating forty-eight pupils is also located, in order that the dynamos and engines may serve for illustration and study by classes.

The blacksmithing and machine shops, each 40 by 84 feet in size, and equipped for sections of twenty-four pupils, are located in the courts, lighted by skylights, and entered from the main corridor thru vestibules, thus pre-

venting noise penetrating the building. Each shop has a storage-, tool-, locker-, and wash-room.

There is a gymnasium 41 by 85 feet in size, with locker and shower baths for each sex; also a lunch-room of the same dimensions, with kitchen adjoining.

The entrance for janitors, engineers, etc., is placed at rear of basement, and the head janitor's room commands a view of all entrances to the main corridor.

From the foregoing description it will be seen that the plan promises to answer the multifarious requirements of a problem comparatively new in school architecture. The constructional features follow the same general lines as of the grammar schools just described. The brickwork is light red in color, laid with wide and deep horizontal joints in courses composed of three stretchers and a header, the latter being flashed.

PORTABLE SCHOOLROOMS

To meet the demand for more schoolrooms where a building may be temporarily overcrowded with pupils, a room was designed which could readily be taken apart, transported in vans, and set up where needed; at the same time answering the purpose of a well-lighted, ventilated, and comfortable class-room.

The building here presented shows a room built in sections of such size as to be easily handled, capable of being bolted together, with all the joints of the sections covered. The buildings are constructed in such manner as will enable them to be readily taken apart when no longer required at one school, and moved to another. They are 24 by 36 feet inside measurement, with a clear story height of 12 feet. The floor is constructed in eight sections, the sides in six sections, the ends in four sections, and the pitched roof in sixteen sections. Each section is built upon frames which are readily bolted together in such manner as to make a perfectly tight and secure room. All joints between the sections are covered both inside and out by movable pieces secured with screws. They are heated and ventilated by an indirect furnace, with double casing. The fresh air is taken directly from the outside, which supply cannot be cut off by the teacher. The vent is erected at the opposite end of the room from the furnace, and the draft of the vent is induced by carrying the smoke pipe from the furnace through the upper part of the vent flue. This not only makes a perfect method of ventilation, but effectually prevents any possibility of fire from the furnace smoke-pipe. A test of the ventilation of the first room set up shows that the air of the room is being changed every 9:74 minutes, thus supplying each of the pupils with 16 cubic feet of fresh, warm air per minute. These rooms are fitted with sixty adjustable desks, and in all respects make a satisfactory and comfortable schoolroom. Their cost has been about $850, ready for the school furniture.

SCHOOL GROUNDS

Believing that a large, well-located site is a wise investment, the board of education has purchased generous sites for all its new school buildings. This has not only enabled us to provide ample playgrounds, but has given an opportunity, in a modest way, for making our school grounds object-lessons of refined civic taste in the art of landscape gardening. Each school ground can thus be made to present to the juvenile mind some distinct instructive feature, awakening an interest in the knowledge of decorative plants and their use in the embellishment of the home and city at large. Thus the school grounds may be made an important factor in the educational system of our city.

In conclusion, the author would respectfully direct attention to the effort put forth in this work toward individuality, and to the absence of any straining for effect not justified by the function expressed in the plan, in the belief that buildings so expressed will more nearly fulfill their purpose as part of our educational system.

LESSONS IN SCHOOL ADMINISTRATION TO BE GAINED AT THE FAIR

CALVIN M. WOODWARD, PRESIDENT OF THE BOARD OF EDUCATION, ST. LOUIS, MO.

[AN ABSTRACT]

Nearly all exhibits of school systems, state and municipal, include statistics and publications in regard to the organization of boards of education and their duties. The general consensus of opinion seems to be, as shown by rules and charters, to have small boards elected on general tickets, or appointed by mayors, for long terms of service. In many cases members of the board are forbidden to take into account partisan politics in appointing teachers, janitors, and officers. Everything is to depend on merit in their proper work.

The tendency is to require the appointment of expert officers who shall have charge of the various departments of school work, namely, the department of instruction, the department of buildings and janitors, the department of supplies. These officers are given great authority, and are loaded with heavy responsibility. They are expected to relieve, and they do relieve, members of the board of education of executive work. The board, however, always reserves the right to disapprove of recommendations and the right to remove an officer the moment he fails fully to meet the requirements of his office.

Many of the exhibits give photographs and floor plans of school buildings and school furniture. These are most instructive, as they show the best results in the way of school structures. Several things stand out as prominent in the best school buildings:

1. They are fireproof thruout.

2. The tendency is toward two-story buildings, with a basement finished thruout.

3. All the heating is done by systems of steam coils in the basement, so that there are no radiators to be found anywhere in the building.

4. Each room is supplied independently by a generous stream of fresh, warm air, driven by a fan, and an equally generous separate ventilation for carrying away the vitiated air. Never before have school buildings been adequately ventilated while the doors and windows were shut. The air passes from the schoolroom thru the wardrobes to the ventilating flue.

5. The temperature of the air in every schoolroom is maintained at a fixed point, about 70°, by means of an individual thermostat. This regulates the temperature of the inflowing air, but does not diminish its volume.

6. It is found that in well-ventilated rooms the ceiling should begin at the very top of the windows. All space above that point is wasted, and worse than wasted, as it adds to the length of a flight of stairs, and increases the expense of heating.

7. The recent improvement in the construction of school desks is one that must not be overlooked, namely, the adjustable feature whereby a seat may be made higher or lower, according to the size of the pupil. A careful adjustment of all seats and desks goes far to prevent physical deformity.

8. The necessity of playgrounds is recognized. These grounds should be ample in size and well kept, so that they are a source of pleasure both to the eye and to the active physical natures of the children.

The introduction of the laboratory in every modern, well-planned school is obvious. This laboratory reinforces the senses of seeing and hearing by the senses of touch, smell, taste, and muscular exercise. Hence we find, from the kindergarten to the end of the high-school course, appliances for hand-work and the materials and small tools suited to the ages of the children. Up to the end of the sixth grade all hand-work is done in the schoolroom on ordinary school desks. Pupils of the seventh and eighth grades require special laboratories, with opportunities for tool-work and drawing at least once a week for the boys, and for the girls needlework and domestic science at least once a week. How the shop for the boys and the domestic-science room for the girls are furnished is shown in the exhibit of the St. Louis schools. Some of the visible products of this course of treatment are shown in nearly all schools, inasmuch as it appears that elementary manual training and domestic science is entering into every community in the two higher grades of the grammar schools and thruout the high-school grades.

In spite of the vagaries and unscientific experiments which are obvious in many exhibits, it is evident that more and more the best manual training is seen to consist of systematic work arranged logically on scientific principles. I notice this particularly in the French exhibit, where it indicates a decided step forward. Originally nearly all the tool construction in France was given

in connection with what we should call practical work. They made things, and they got their manual training as best they could while constructing articles, with the assistance and under the guidance of expert workmen. It now appears that before they begin the work of construction they go very carefully thru a course of instruction in which tools and processes are introduced, classified, and logically arranged. It is true that every untaught and undisciplined child is anxious to undertake the construction of elaborate and complicated articles without knowing how to use a single tool or how one piece of material is to be joined with another piece of material. In such work he is willing to resort to any device that will hold two pieces together, regardless of the demands that subsequently may be put upon the connecting devices. To indulge a boy in this, gratifying his fancy and his whims, is very injurious. It almost invariably results in a lack of system, in bad habits, and in a loss of interest and a loss of respect for the work. Work that can be done without teaching and without a comprehension of the theory of tools, and the theory of construction according to the nature of materials, is necessarily cheap and almost worthless. A careful study of the exhibits from the best schools, both American and European, will show that in every case the fundamental elements are first studied in connection with analytical exercises, then the elements are combined in connection with synthetic exercises, in order that the pupils may see for themselves how a thoro knowledge of the methods and steps enables one to combine them in a full mechanical expression.

Athletics and physical culture demand and are receiving much attention. When unregulated, athletics run riot in the lower schools as well as in the higher. Boards of control must recognize the propriety and necessity of athletics, but they must so regulate them as to make them general, wholesome, and clean.

Finally, school boards will observe a vast increase in the demand for secondary education. It is rapidly becoming the rule and not the exception for pupils who finish the grammar grades to go on to the high school. The consequence is that the necessity for high-school buildings and high-school teachers is increasing much more rapidly than the population. Mr. Rogers, chief of the Educational Department of the Fair, pointed out that both the domestic and the foreign exhibits showed that elementary, technical, and scientific instruction was rapidly subordinating the humanities in our schools. This I think should be nterpreted to mean, not that the humanities are taught less than ever before, but that elementary science and manual training are taught much more. In other words, the educational work of our schools is growing as broad as the occupations of men. We teach more Latin than ever before, yet it bears a smaller ratio to all the things which we teach. When I was a boy we studied Latin, Greek, and French in our high school, in addition to our mathematics, because there was nothing else to study, and the pupils who did not wish to be trained in Latin, Greek, French, and mathematics did not go to the high school or to the academy. They had no secondary educa-

tion. Now we maintain the best opportunities for Latin, Greek, French, and mathematics, and also splendid opportunities for those who wish to study physics, chemistry, biology, drawing, and the mechanic arts; and it is found that these latter subjects are just as full of culture, are just as human, are just as useful in the development of the human mind and the human spirit, as the others; and it is now the duty of every board of education in every city and town to provide for this larger demand.

LIBRARY DEPARTMENT

SECRETARY'S MINUTES

FIRST SESSION.—TUESDAY, JUNE 28, 1904

The Library Department met in the Model Library Hall in the Missouri Building, and was called to order by the president, Nathan C. Schaeffer, of Pennsylvania.

The meeting was opened by an address on "Library Work in the Normal School," by Theodore B. Noss, president of the State Normal School, California, Pa.

The discussion of the paper was opened by Miss Grace Salisbury, librarian of the State Normal School, Whitewater, Wis., followed by President Albert Salisbury, of the same institution.

The second paper was presented by President J. N. Wilkinson, of the State Normal School, Emporia, Kan., on "The Duty of the Normal School in Relation to District School Libraries."

The discussion of this paper was opened by Miss Mabel M. Reynolds, librarian of the State Normal School, Cheney, Wash., followed by James H. Canfield, librarian of the Columbia University, New York city.

The following committees were appointed:

COMMITTEE ON RESOLUTIONS

J. N. Wilkinson, of Kansas. R. T. Adams, of Pennsylvania.
Miss Anna Buckbee, of Pennsylvania.

COMMITTEE ON NOMINATIONS

James H. Canfield, of New York. Albert Salisbury, of Wisconsin.
David A. Harman, of Pennsylvania.

The session then adjourned.

SECOND SESSION.—THURSDAY, JUNE 30

The department met in the Model Library Hall in the Missouri Building, and was called to order at 2:30 P. M. by President Schaeffer.

The Committee on Nominations reported the following nominees thru its chairman, Dr. Canfield, and the secretary was instructed by unanimous vote to cast a ballot for their election, viz.:

For *President*—C. P. Cary, state superintendent of public instruction, of Wisconsin.
For *Vice-President*—J. N. Wilkinson, president of State Normal School, Emporia Kan.
For *Secretary*—Miss Mary Eileen Ahern, editor of *Public Libraries*, Chicago.

The first paper, on "The Place of the Library in Class Instruction," was presented by Clarence E. Meleney, associate superintendent of city schools, New York city.

The discussion was opened by Superintendent F. Louis Soldan, of St. Louis, followed by Miss Ange. V. Milner, of Normal, Ill.

The theme for general discussion was "The Value of the Library in Education," opened by President N. C. Schaeffer, followed by Principal Frank Cook, of St. Louis, F. M. Crunden, librarian of the Public Library, St. Louis, Mo., and M. E. Ahern, of Chicago.

The Committee on Resolutions, thru its chairman, President Wilkinson, reported as follows:

RESOLUTIONS OF THE LIBRARY DEPARTMENT

The Library Department of the National Educational Association urges teachers to study the best methods of using libraries in the subjects that are taught in the schools and, especially, to train pupils to choose widely and to read effectively the books that are to occupy their time.

This department, believing that teachers will appreciate the need of trained librarians, addresses to the teachers, of whose great national convention this section is a constituent part, an earnest appeal that they stand for the special training of librarians for all classes of library work.

We believe that the efficiency of library work is unnecessarily hindered by the present postal rate on books, and we therefore urge upon the Congress the passage of the bill, No. 4870, which provides for a pound rate on all books sent out from a public library for library use.

It is the sense of this department that greater uniformity in library methods would be effective in bringing the benefit of library work to all classes of schools, and it is therefore recommended that the Library Department be authorized to prepare a manual of library methods, to be printed and distributed in the same manner as was, in 1897, "The Report on the Relations of the Public Libraries to Public Schools."

The department then adjourned.

MARY EILEEN AHERN, *Secretary*.

PAPERS AND DISCUSSIONS

LIBRARY WORK IN NORMAL SCHOOLS

THEODORE B. NOSS, PRESIDENT OF STATE NORMAL SCHOOL, CALIFORNIA, PA.

I. THE LIBRARY IN PUBLIC-SCHOOL WORK

The recent change of stress in the subject-matter of instruction from form to content makes the library an indispensable factor in the public school. The present tendency is to teach, not what the old century made customary, but what the new century finds necessary. The normal school welcomes this tendency as a sign of educational sanity and progress.

Education is in constant need of readjustment to meet ever-changing conditions. For this reason the library at the present time assumes an importance as an educational force never felt before. This is the result of various causes, such as the immense increase in the supply of good books in cheap form, the rapid increase of the urban population, the disposition of men and municipalities to found libraries for public use, and especially the recognition of the fact that education should deal more with things of intrinsic interest and of larger meaning—such as may be found in literature, nature study, and art—and less with mere formal studies that have a more or less conventional value. Much of the pupil's time has been used in teaching him things which he will never need in geography, arithmetic, grammar, etc., and things which the teacher has never needed except for examination. The hungry child has asked for bread, and we have given him a stone. He has said to the teacher: "What shall I do to be saved from failure and poverty and ignorance?" The teacher's reply has been: "Make the verb agree with the subject in

number and person;" or, "Multiply the numerators together for a new numerator and the denominators for a new denominator."

The pupil finds, when he gets into real life, that nobody cares for these pedantic niceties of the school, while everybody prizes and praises the very things the school neglected, such as strong interest in literature, music, art, physical health and grace, speed and skill in doing things worth doing, social accomplishments, and moral excellence.

There are but few studies important in themselves, such as literature, science, and art (including music, drawing, etc.); the other branches are but modes of studying these. The form studies, such as reading, writing, and arithmetic, have but little value in themselves. Moreover, we do not lessen but increase interest in the "three R's" when we insist that they be taught in connection with thought-studies that give them meaning and show their utility.

It is said that 75 or 80 per cent. of the first three years of school are spent on the form rather than on the substance of learning. This results not merely in a waste of time, but in a sort of mental stupor. The pupil enters school at six with mind alert and acquisitive, and leaves school at fourteen or sixteen with mind apathetic and satiated. Somewhere during school life he has lost what is of more value than all the book knowledge he can acquire in school. President Eliot had a certain person read aloud all of the reading matter in a grammar-school course for a period of six years, including history and geography, as well as the reading lessons. The actual time required was forty-six hours, or an average of one and one-fourth minutes a day.

How pitiful to see the fountains of youthful interests thus dried up in the school where they should be fed! How pitiful to see teachers and pupils magnifying trifles, and creating and intensifying artificial interests that are designed only for the school, and are often pernicious even there!

The need is for more reading, more teaching, more thinking, more feeling, more doing, and less so-called "reciting," examining, marking. It is just here that good literature comes in the most helpful way to redeem instruction from dead form.

It is just here that this comparatively new factor, the library, can be used with telling effect in the work of the school.

In this day, why should any child be required to read thru a whole series of school readers, made up on the scrapbook method, when there is such a wealth of good literature suited to pupils of every age? And why should a pupil be required to read the same book thru again and again, when he might be absorbing the interesting contents of many books in the same time?

When there is such intensely practical business on hand as the education and training of a child, so that he will resist the forces of evil in his blood and surroundings, does it not seem a pity to neglect the wealth of wholesome and nutritious culture material found in good books, and waste time on much of the comparatively useless stuff embalmed in text-books?

Concerning the permanent value of much that is usually taught in school the thoughtful teacher must always be skeptical; but it is the teacher's happy privilege to be *sure* that every interest created in good literature is to the pupil a benefit that only grows in value with time.

If it is granted, then, that the library is needed as a working force in every school, how may the normal school promote its use?

II. FUNCTION OF THE NORMAL SCHOOL IN RELATION TO THE LIBRARY

The frequent and systematic use of a library is a habit. If the habit has not been formed, people may live, as many do, in the very shadow of a great library and never read a book found on its shelves. If the habit is strong, no difficulties will prevent the getting and the reading of books. To create a taste for reading is more important business than merely to furnish books to read. We honor those favored few who can with their wealth erect and equip libraries, but to build up an interest in good literature is a greater benefaction than to build libraries, and it is a business in which every true teacher may engage. Facilities for reading are an external boon of value; but a desire to read is an inner motive that is a pearl of great price. Has a school done much for any pupil who at the end of his course does not care to read good books? Who can estimate, however, the extent and value of that habit of reading which enables the pupil to become his own teacher—that habit which lures him, unconsciously, into the most beautiful and instructive paths that the choicest men of the race have trod? Like most other habits, this one of reading good literature is best acquired in youth. In the happy period when the child looks up wistfully into the face of mother or teacher and asks for a story should be begun the formation of this reading habit. The biographies we love to read tell us again and again how the insatiable thirst for good literature was first gained in the impressionable days of youth. Since the reading habit is best formed in youth, it must be acquired either in the home or in the school, where the period of youth is spent. Children who are surrounded with attractive books at home, and those who are yet more fortunate in having a mother who at first reads to, and then with, them, will need but little encouragement afterward to make use of the library; but unfortunately such children are comparatively few.

For the great majority the school must be depended upon to initiate the child into the art of reading good books; hence it becomes a matter of vital importance that every school should be so equipped and so taught that each pupil will glide or grow easily and certainly into the reading habit.

It has been said that "85 per cent. of the value of the school lies in the personality of the teacher, and 15 per cent. in all other means and appliances." If this be true, we come at last to the teacher as our main support, the sheet anchor of our hope, in the slow and delicate and difficult process of forming in the minds of the young the library habit. Every teacher imbued with the library spirit will have pupils who learn to read and love to read. "As is the

teacher so is the school." If the pupils acquire in the school a taste for good reading, and the habit of using the library well, it will be, in most cases, because of the teacher's interest and leadership in this direction.

It is the function and privilege of the teacher to mold, guide, inspire, and enrich the mental life of his pupil. Where are such teachers to be found? They can be prepared in adequate numbers and with adequate knowledge and skill only in normal schools. There is no other considerable source of supply. It should be the function of the normal school to furnish education and training on the higher planes of real utility and culture, and not merely on the lower levels of conventional studies. Students in a normal school should live in a library atmosphere. No agency for awakening deep and lasting interests is greater than that of the school library, well equipped and well used. It should be a hive of industry, and an inspiring center for the work of the school.

Mr. Willard Austin, of Cornell University, has truly said: "No institution has any moral right to call together a body of students at this period of their development without making adequate provisions for this need" (of a library). Is it necessary in this day to argue the indispensable need of a library to one preparing to teach? Without it how can the necessary teaching material be obtained in suitable kind and variety? The two main sources of the teacher's supply are the pages of nature, in field, forest, and stream, and those found on the library shelves. In nature and in books are to be found almost entirely the content of instruction. Teachers need the library, not only for the good of their pupils, but to prevent their own work from becoming to themselves monotonous. Normal-school students should be trained in the art of finding books interesting to themselves and of making them interesting to children.

Every graduate of a normal school should be an apostle for the spread of the gospel of the library. To fail here is to fail in a vital part of a teacher's work. A library, either in a normal school or in the public school, is no longer to be considered a luxury, but a necessity. Without it instruction tends to grovel and to become formal and mechanized. A considerable part of a good education is a knowledge of books and skill in their use. The library works silently and powerfully, like elemental forces in nature. It is the quickest and best means available to lift school instruction out of the ruts of long and low usage, and to redeem it from the blight of a dead formalism. It is said that a country lad after a fifteen minutes' talk with an expert librarian said: "That talk with Miss R. was worth more to me than a term's work with any professor. I know how to take hold of a book now, and get some good out of it."

Each normal-school library will have its individual and peculiar features. Its usefulness will depend on a combination of circumstances that do not coexist in the same way anywhere else; such as the size and attractiveness of the room; the number and kind of books; the attitude of instructors toward library work, especially in such studies as literature, geography, history,

science, etc.; the accessibility of the library; the hours of the day when open; the personality of the librarian and her assistants; the effort made to encourage students to use the library; the credit given for good library work in the official records of the school; the emphasis placed by the faculty upon the reading habit; the whole attitude of the faculty toward culture and personality as prime requisites rather than mere text-book information.

It is not enough to erect a library building, stock it with books, hire a librarian, and open the doors. It is usually necessary to infuse a missionary spirit into library work until its value comes to be realized by experience. Then, of course, it becomes as indispensable to the student as are tools to a carpenter. If all normal schools could and would at once provide ample library facilities and furnish, what is rarer than books, a good library atmosphere, it would not be a dozen years until public-school libraries would dot the map of states, as the stars fill the firmament.

In the normal school with which I am connected a library was begun twenty years ago. Prior to that time we had no library or reading-room. Now the library is, next to the training school, the most striking feature of the school. We began by taking for the library a good-sized recitation room. Some of the officials of the school thought a smaller and less desirable room should have been used. A few hundred books were soon bought, begged, or borrowed. Periodicals were subscribed for and placed on tables, while donated copies of newspapers were kept on files. In some six years we outgrew this room and then took possession of a room three times as large that had previously been used as a study hall. This sufficed for ten years more. Meanwhile the library continued to grow in size and importance as a factor in the life of the school. Three or four years ago it was again found necessary to obtain larger quarters, and a large assembly-room centrally located on the first floor of our main building was used and its size doubled by building to it an annex, octagonal in form, with a skylight in a dome twenty feet in diameter. The use of the library by students and teachers has increased in a still greater proportion than the size of the library. Not only do all normal students make some regular and systematic use of the library, but several grades of the training school as well, beginning with the third grade, each class having the guidance of a student teacher or the assistant librarian.

By our plan, every child in a grade reads daily. Just enough help is given silently, to each child needing it, to tide him over his difficulty. The natural and strong interest thus created enables the child to teach himself much which otherwise the teacher would have to impart with difficulty in the schoolroom.

Each child continues the reading of a book until it is completed and then gets another. Children eight years of age, including every pupil in a grade, read with motives as definite and interests as strong as in the case of adults. The higher grades of the training school use the main reading-room of the library, while the third and fourth grades use a small adjacent room which

has been especially fitted up as a children's reading-room. Our experience with this children's reading-room has now covered two years and has been as satisfactory as any other line of work. We have been surprised and highly gratified with the results with these young pupils.

The main reading-room as well as the children's room is decorated attractively with suitable color tints on walls and ceiling, and the floor is covered with heavy linoleum.

We have about six thousand carefully selected books in this large, well-lighted reading-room. The library is central not only in location, but central in almost all of the activities of the school. Every department feels its helpful touch and would be greatly crippled without it. The literary societies need it in the preparation of debates, essays, orations, declamations, etc. The various religious associations need it for its large assortment of Bible commentaries, missionary literature, religious biographies, etc. It is the main standby in the geography classes, for their work is done largely thru the use of general reference-books. The study of literature without a library would be but a hollow mockery. Much the same would be the case with history, science, historical art, and some other subjects.

DISCUSSION

Miss Grace E. Salisbury, librarian, State Normal School, Whitewater, Wis.—Dr. Noss has brought before us so clearly the value of the library habit and its natural method of acquirement that we can remain in no doubt as to the importance of instruction in the use of books in normal schools. If the children now in our public schools are brought up in the systematic and intelligent use of the library, there may come a happy time when special instruction along that line is unnecessary in the education of teachers; but that day is still far distant. If the children are in need of training in this work, their teachers in many, many cases are in almost as great a need. A large proportion of our teachers, especially in our graded schools, come from homes that are not centers of culture. They must acquire the love of literature and skill in reference work before they can transmit interest and enthusiasm to their pupils. In other words, the student teachers in our normal schools are the children Dr. Noss tells us about, grown large. We must meet their needs before they can meet the needs of others.

I believe in progressing still farther along the lines indicated by Dr. Noss. There is a field of work that lies entirely within the province of the librarian. To get the most out of books, not merely for pleasure and literary culture, but for actual study purposes in the schoolroom, the teacher must understand how to find material in books she has never read and will never have the time to read. She can get this understanding most easily and thoroly by means of work in the analysis and indexing of books. This work the librarian should give. It seems to me that every normal school should offer two distinct courses in library work—one in the use of the library, and the other in its organization.

The first line of work should be given to all entering pupils both in the normal department and in the upper grades of the model school. In the Whitewater Normal School this course consists of a series of ten lessons: the first, an introduction to the library as a whole, with a careful explanation of the classification, followed by actual practice in finding books and returning them to their places on the shelves. Lessons are given on dictionaries,

cyclopædias, annuals, biographical reference-books, and certain special reference-books. One lesson is given on the use of the Poole and Cumulative indexes, followed by the making of careful, but not exhaustive, bibliographies. At least one lesson is given on the card catalog.

A course in library organization should be given to pupils who have already become familiar with the use of the library, and the aim should be to acquaint them with the work of the librarian, so that on graduation they may go into a rural school, or even into a high school, and organize the library.

In this course, lessons should be given in choosing and ordering books, classifying, accessioning, and cataloging; also in the care and mending of books, cutting and mounting pictures, binding magazines in manila covers, the care of newspaper clippings and pamphlets, etc. This outline of work sounds overwhelming, but I know that it is practicable, if all available helps are utilized. Only a few principles and rules should be given them to work with, but they should have a reasonable number at hand in convenient form for reference in case of difficulty. Much attention cannot be given to form, penmanship, etc., but the work in the English department should be a help here. The student teachers will not emerge from the course as librarians, but they will emerge as more intelligent teachers.

A few months ago I sent out a circular letter to our graduates of last year who had taken this library course. In the letter I asked them to tell what use, if any, they had made of the work given. The replies, numbering about thirty, were interesting. With but one or two exceptions, all stated that the work had aided them very greatly in the intelligent use of their school libraries, and that they were exceedingly glad they had taken it. Eleven reported practical work done. Five of the eleven were men, and that from a class with only nine men in it. Five reports indicated work in mending books, mounting pictures, paper-binding, etc.; one, in classifying; and five, in classifying and cataloging. One young man, principal of a small high school, with the help of his teachers and at an expense of four dollars, classified and cataloged a school library of seven hundred volumes. I confess he did not adhere strictly to "Library School Rules," but he wrote me that he considered the value of the library to have increased tenfold, and I believe it had, altho I doubt not that I should groan in spirit could I see the cards made, and think of the "Library School Rules" violated.

The work just outlined cannot be done satisfactorily by depending on note-taking on the part of the students. For two years we gave all the work orally, but it took so much time, and the notes were so often inaccurate, that we gave up in despair, and for a year supplied mimeograph copies of the necessary rules and suggestions, spending the class time in illustrating and explaining difficult points with the books before us. This last year we have used a little handbook printed for the purpose. It has proved a great time-saver to both pupils and teacher.

This course should be elective and the teacher should meet with the class daily, assigning outside work as in any other branch. However the work can be done as we do it. Our classes meet once each week for ten weeks, doing their practical work on the intervening days. The work is all made very simple, and every paper and card is carefully corrected and returned.

Now that school libraries are growing to be such an important feature of our school system, our teachers must learn how to get the most possible good from them. This they can do, I firmly believe, only by acquiring some knowledge of simple library methods.

ALBERT SALISBURY, president of State Normal School, Whitewater, Wis.—The study of library methods is one of the requirements for graduation at the Wisconsin State Normal School at Whitewater. The time at our disposal for it is limited, but an effort is made to make the work interesting and profitable.

In all the Wisconsin Normal Schools, one hour each week is set apart for what is called "Library Readings," this work including the whole school. To make place for

this, one hour each week is taken from the regular studies, moving on a sliding scale through the daily program. Two quarters, or 20 weeks, of this time in library readings is given to library methods. In one quarter the time is devoted to acquainting the students with the library itself, the finding of books by means of the card-catalog, the use of reference books, etc. In the senior year, another quarter is given to the study of library methods in the stricter sense of the term. Still another quarter of the library readings is given to acquainting the students with juvenile literature by actual examination and discussion of books suitable for children of different ages.

J. H. CANFIELD, of Columbia University, New York city.—We need to have among the teachers a broad appreciation of public libraries as an integral part of every public education. This thought should be driven home in the normal school. The teacher should be a person of weight in the community, and he should carry his full load of responsibility in building up an appreciation and an intelligent use of the free public library in his vicinity.

No one can appreciate the full value of a library without knowing something of its machinery. The rank and file of school men do not yet appreciate the part a library plays either in the school or in the community. The normal school must start the movement.

THE DUTY OF THE NORMAL SCHOOL IN RELATION TO DISTRICT SCHOOL LIBRARIES

JASPER N. WILKINSON, PRESIDENT OF STATE NORMAL SCHOOL, EMPORIA, KAN.

Library work in normal schools is the only means these schools have for discharging any duty they owe to district-school libraries. Taking this view, we establish close connection between the two subjects for this afternoon's discussion. This paper will seek to establish the position that the training of librarians by normal schools is necessary to make school-district libraries effective.

Is it necessary to show that district libraries are not now effective? It may be dangerous to question in some quarters the efficiency of anything that is called a library. The very name itself is something to conjure with. We are impressed by the card pasted inside the cover of a book, "Library of John Smith," and we assume that John Smith must be a man of wisdom, even tho there be none of that article in the books he has chosen for his library. A proposition to found any kind of public library cannot be opposed without bringing odium upon its opponent, however good grounds he may have for doubting the possibility of getting good results under any management that can be established. A library is a charity which must not be questioned; it may be like charity in that it "covers a multitude of sins." The best article I have found on district-school libraries reports an instance in which a benevolent hired hand on one of the farms of the district was keeping up the library by giving it his paper-backed novels as fast as he was thru with them. The library department of a well-known bookstore has been known to do such a thing as send Boccaccio's tales with indecent illustrations. A library may

give poison instead of food; it may lead to habits of mental dissipation; it may be so managed that the money it costs is worse than wasted.

We may safely concede, or concede as a measure of safety, that the libraries managed by the members of this Library Department are no such means of evil, but we shall agree that the possibilities of wasting money which exist in all libraries are in greatest danger of being realized in district-school libraries. Their only safety on this point, so far, is in the fact that they do not have much to waste. The library for which Kansas laws have long made provision looks well in reports, but there is little to show for it in the schools. The law tries to protect us against the spending of money for fiction when it says: "The district board, in the purchase of books, shall be confined to works of history, biography, science, and travels." Protection against the wily book agent would have been more to the point. The district school library needs a teacher who can guide correctly the book-buying. In many districts there has been the experience that no one knew the need of books for which to spend the money when raised, and it came to pass that the money was spent for some such thing as a stereopticon which could be shown by the agent to come under provisions of the law. How can even a teacher guide in the purchase of books unless trained? Here is a duty for the normal school.

Ohio has been known to boast that she long ago put in operation a very effective district library law. The district in which I was a pupil had a library of which I learned by the merest chance. The books were at my father's house long enough for me to read Irving's *Columbus* and Franklin's *Autobiography*. Then the books went into the custody of another home in the farther side of the district, and I never heard of them again. I never saw any of these books at the schoolhouse. The teacher was not prepared to do anything to make the library effective. He did not know what books would interest and benefit pupils. He did not learn the truth that Edward Everett Hale declares when he says: "Whichever avenue we take must be one of the pleasant avenues, or else the young people will go a-skating or a-fishing or a-swimming, and not a-reading, and no blame to them." Parents cannot and will not take the guidance of the reading of their children. The teacher should do it. How could he be prepared unless that was part of his training? Here is a duty for the normal school.

The district school library cannot be effective unless the teacher is able to take charge of it and attend to the distribution and collection of books. A certain amount of formality is necessary to secure appreciation for the library. The cataloging of the contents of even a few books is necessary to their effectiveness. The custodian of the books must know how to catalog as well as how to use the catalog. The school must be trained into orderly habits in the use of books. If this is not done, the library goes to destruction. Who can be expected to do this except the teacher? Even the teacher cannot do it without special training. Here is another duty of the normal school.

If the state normal school accepts the duty of preparing district school

teachers to manage the district library, ways must be found for the discharge of this duty. For most of these teachers such preparation will, if received from the state normal school, be second-hand information at best. No state is likely soon to require that all its teachers be trained in state normal schools. But limited as is the influence of the state normal school, no other educational institution exerts a power so widespread among the schools. Not as a teacher in any other school could the writer of this paper have seen students assemble under his instruction from every one of the more than a hundred counties in a state of nearly a hundred thousand square miles. The making of library knowledge and enthusiasm general among normal-school students is a most effective means of making district-school libraries successful.

To discharge this duty of the normal school, every student in the institution must receive library instruction while in the course. The number who graduate are a small percentage of those who take the work of the first year. All who enter the normal school should receive instruction in the use of the library early. They need this for their own guidance as students. In giving this instruction to them early we make sure of their being ready to introduce sane library ideas into the teaching which many do between entrance and graduation, as well as in the work done by those who never graduate. In the Kansas State Normal School every student of the normal department is eligible to a course of eight lectures for which regular attendance and the taking of notes are required. In order that all who make progress thru the course shall get this work, the entire membership of the classes in one of the second-term subjects take this work as a part of the subject. The following is a list of the subjects presented in one course of these lectures:

SATURDAYS, 9 A. M.—FEBRUARY 1 to APRIL 1, 1904

1. Classification and arrangement of books in reading-room.
2. Catalog.
3. Periodical indexes.
4. Encyclopædias, including biography, geography, and statistics.
5. History.
6. General information; quotations, customs.
7. Government documents, check list, catalogs, etc.; *Congressional Globe* and *Record*.
8. How to look up a subject in the library.

These subjects for lectures doubtless include both more and less than the teacher of the district school needs to know for the satisfactory managing of a district library. The things omitted can be filled out in the exercise of good common-sense in actual practice, just as the bookkeeper who has a general knowledge of his subject can adapt himself to the conditions of any particular business. Training in excess of what is required is necessary to keep up enthusiasm and a proper standard for the minimum. On this ground, we find the necessity for an optional course in the work of a library school, if we are to commend to all the minimum requirement such as the lectures outlined here. All educators understand that the maintenance of higher schools is necessary to

keep up the standards of elementary schools. The doing of advanced work by a few serves to incite all to some measure of achievement in the elementary phases of a subject. My earliest recollection of any particular interest in the study of arithmetic dates from the time when I saw the highest class in school reciting algebra. Most people must see some higher attainment by another to convince them that their similar achievements are worth the effort. The state normal school cannot do its duty toward the district-school libraries without giving, to those who desire it, advanced work in library management. In the school that the writer knows most about, the senior class may elect a course of fifty recitations on library management. For those graduates and librarians who wish to make special preparation for library work we have a course taking all the time for nine weeks. We believe that the enthusiasm of the specialist who gives these courses, and of the students who take them, is of much value for the building up of an interest in district school libraries, and therefore this advanced work should be mentioned in connection with the subject we are discussing. Let me run still greater risk of being suspected of special pleading for the library school adjunct to a normal school, when I urge that the preparation of teachers for the care of high-school libraries is necessary to make the administration of district-school libraries a matter of sufficient general concern. When the high school sends its graduate to teach a district school, the high-school library will be the standard of that district-school library. I will go even farther than the high-school library and say that, if the city libraries which I have seen under the control of city council committees were under the control of school boards, there would be more efficiency demanded of librarians, and the standard would be raised all the way down the line. Too many city councilmen rise no higher in their standard of qualification for the librarian than did a certain old man who could be named. He reported that he had been looking around for a job that he could do, and he was sure he could take down and put back all the books except those on the top shelves, and he would hire a boy to climb up to them if he could be favored with the position of head librarian. School boards are more accustomed to demand some standard of preparation than are city councils. The influence that reaches from the normal school thruout the public schools should be potent to raise the level of all library work. Let me say here that the normal students are not to be the only librarians; we shall expect from the library schools which admit none but college graduates the most abundant inspiration and guidance for library-training departments in normal schools, just as the work done by the normal schools shall furnish inspiration and guidance for the teacher of the common school.

I close with the recording of my conviction that the normal school should include in its function the giving of all training that the teacher finds should supplement his general education, and by this standard the normal school owes to all the libraries with which teachers have anything to do such preparation of those teachers as will enable them to commend the library and to

make it give good returns for the money invested. Only when the library training given by normal schools has reached down to the district schools will the duty of the normal school to the district-school libraries have been fully discharged.

DISCUSSION

Miss Mabel M. Reynolds, librarian of the State Normal School at Cheney, Wash.—In the extension of the library movement normal schools have a most important place. The promoters of the traveling-library movement have found their greatest difficulty in securing local librarians. Normal schools have the opportunity to train the district-school librarian. They may help even those teachers who have but a few months to spend at school, to become interested in the library movement. The people who teach, and who do not come to the normal at all, may be reached thru the county superintendents, the teachers' institutes, and thru articles in the state teachers' journals, and reprints of these articles, or other circulars, sent to the teachers and county superintendents.

One county superintendent in Washington told me that he thought the district-school teachers needed most to know how to select the best books for use as supplementary and reference material in the different branches of the course of study, and how to select interesting and profitable books for the home reading of each child. Both of these things may be taught at the normal school, if the teachers of methods, the training-school supervisors, and the librarians will work together, and use the children's books.

The training-school library ought to be of much service to the normal students. The students in our normal schools read children's books a great deal, as many of them had no opportunity to do so when they were children themselves. This reading is encouraged, and, as the training-school children come to the main library rooms to draw their books, many of the books most in demand are placed on the tables for examination, so that it is easy for the most indifferent students to get something as they pass by. Further acquaintance with the best literature for the school may be gained thru the many excellent lists at the command of the librarian, and by model exhibits of good collections of ten, twenty, and fifty books for district-school libraries.

The district-school teachers should learn of the library movement in their own state, of the library legislation, of the lists compiled by the state superintendents, if there are such, and of the way in which local conditions are being met by the most progressive district-school leaders. This means that the normal-school librarian must put herself in touch with the district schools of the state. She must see that all students who have the opportunity to use the normal library, for many of whom it is the first good collection of books they have ever used, get some definite book knowledge to use in their schools, and some library enthusiasm to make them eager to obtain books for their pupils when they go out to teach.

Normal students need to be provided with an opportunity to catch the library spirit. Visits to children's rooms in the public libraries; hearing talks given by the library assistants who work with the public schools; assisting at the loan-desk when the children of the training school draw books; reading of the "accomplished good" in the library world, as given in the articles in the general magazines—all these things may open a new world of possibilities to young people who are to teach the country schools.

The women's clubs and the farmers' institutes are interested in the traveling libraries. Two collections of books in a community are better than one, and should not the district-school teacher work with all library forces? Her library course ought to make her feel that, no matter into how isolated a community she may go, there are library workers interested in her and in the spread of the library movement in that place.

In Washington I have found county superintendents, members of the State Federation of Women's Clubs, the state librarian, and mothers anxious to have their children love good books, all interested in what the normal schools are doing for the library cause.

The normal-school library must work not only inside the walls, but outside, if the patrons of the district schools are to be reached, and the country children trained to love and use books. The more the normal schools grasp their opportunity, the broader grows the library field.

THE PLACE OF THE LIBRARY IN SCHOOL INSTRUCTION

CLARENCE E. MELENEY, ASSOCIATE SUPERINTENDENT OF SCHOOLS, NEW YORK CITY

The last report of the superintendent of school libraries of the city of New York shows that there were on January 1, 1904, in the elementary schools 7,981 class libraries, independent of the libraries of the several departments in the high schools and the general libraries of the elementary schools. During the year ending February 1, 1904, over two hundred thousand new books were added to the school and class libraries of the public schools. Every school, except those recently opened, is thus furnished. About $44,000 is available each year for school libraries, apportioned to the several schools according to the enrollment. Each principal may select such new books as the school needs from the library list adopted each year on the recommendation of the board of superintendents.

The library list contains the following classes of books:

1. Books for teachers, including (*a*) professional books on the history, science, and art of teaching; (*b*) reference-books on the subject-matter of the course of study; (*c*) books for general culture.

2. Books for the use of the pupils, including (*a*) reference-books dealing with the subjects of study of a wider range, or more highly specialized than the regular class text-books; (*b*) prose and poetry in the realm of literature designed to cultivate a love of reading, a taste for good literature, and the development of the emotional and æsthetic nature of the child.

The books on the pupils' list are used as follows:

1. In the class-room: (*a*) by individual pupils as aids to study; (*b*) by individuals for silent reading, to cultivate the power of independent effort; (*c*) by the class as a basis of discussion and for critical reading; (*d*) by the teacher, in all grades, and by pupils in higher grades, to *read to the class*, to give pleasure and to awaken an interest in the subject-matter or in the author's work; (*e*) by the teacher and the class to accustom the children to the use of a library, to encourage research, to teach the method of getting facts from books, to cultivate the habit of looking up subject-matter, and to prepare pupils to make practical use of a private or a public library; in brief, to prepare students to understand, to appreciate and to use a library in after-life as a means of self-education.

2. At home: (*a*) to furnish additional information on the subjects of school work, and to cultivate the power of individual study and research; (*b*) to afford practice and give facility in reading, to cultivate a love of reading, and to establish the reading habit; (*c*) to afford pleasure to members of the family, and to establish a closer relation between the home and the school.

The administration of the class libraries is under the supervision of the principal, who is responsible for the selection and ordering of the books; under the direction of the teacher, who is responsible for the general care of the books, the assignment when necessary to the pupils, and the suggestions as to the subjects to be read; and under the charge of the class librarian, one of the pupils, who keeps the record of the books taken out, and who holds the borrower responsible for the safe return of the volumes to the library.

In addition to the library books available in the schools there are very many branches of the New York and Brooklyn Public Libraries well distributed thruout the boroughs, and many other library systems maintained by philanthropic societies affording all the privileges of a circulating library. Many pupils in our public schools are "members," so called, of these libraries and are constant readers. It is common practice for teachers to obtain sets of books from these libraries to supplement the work of instruction. Catalogs are available so that the teachers may suggest to their pupils suitable books appropriate to their needs. The traveling libraries, so called, loaned by the societies, have for a long time been available, not only to the day schools, but to the vacation schools, playgrounds, and evening recreation centers.

I have indicated in outline the character of the library material available for use in the public schools. It may be assumed that a detailed presentation of the definite purpose and method of using such appliances in the school is unnecessary at this time. The value of a library in an elementary school is measured by the capacity of the pupils and their ability to make use of it as an instrument. Its importance grows with the advancement of the class. This is true of all appliances and apparatus in the schools. Class libraries may be of little use in elementary or high schools. We have seen very expensive apparatus and very admirable text-books in high schools unprofitably used. The success of library or of school apparatus depends upon the method of its use, and the method depends upon the person in charge, whether librarian or teacher. A suitable class library is just as important as a set of text-books or proper illustrative apparatus.

A library that can be made useful and profitable, that can be readily managed by a successful teacher, and that will prove a delight to a class, should be selected upon a few fundamental principles: it must be limited in the number of volumes; it must be related intimately to the subject-matter of the grade; it must contain only books that the pupils can easily read. Each library should be distinctly a class library, of the appropriate grade, and should not be duplicated in a higher grade. The pupils should understand that it belongs to their class alone, and they should know that an entirely new library—new to them—is awaiting them in the next higher class. There should be volumes enough in each library to satisfy the reasonable demands of all, beyond which the public library should be available for the use of the most ambitious or most studious readers. The books of the class library should be thoroly and repeatedly read. The value of a book to a student is in its mastery. The teacher should train his

pupils to read a few books thoroly rather than to read many books carelessly and superficially. I asked a young girl why she was reading *Little Women*, and if she had read it before; to which she replied: "Because I love it. I have read it twenty times"—which I took to mean that she had read it *many times*. Good books should be read "twenty times," and a book that is not worth reading over and over is not worth reading at all. I am convinced that we as teachers and librarians should institute a decided reform by inculcating the habit of repeated reading of good books and by breaking up the habit of carelessly reading new matter. A properly selected library can be utilized to train to right habits, whereas the usual practice makes superficial people and caters to the hunger for new things, new excitement, feeds an overstimulated imagination, and results in a total lack of concentration and careful reflection. One of the greatest banes of modern life is the voluminous newspaper; another is the multiplicity of magazines; and the library, unless properly used as precious material, may utterly fail in its office as a means of education.

To appreciate fully the place and function of the school or class library one must look at the subject in relation to the whole problem. The school and the library are two agencies in the education of the community. The school is limited in its operations by the years of school age; the library is one of the means of education which are operative during a whole lifetime. The function of the school is to prepare children to take up the activities that constitute the whole of life—this whole of life embracing complete development of all human powers, much of which is education. In the direction of education, the school is only the introduction, and its chief service is in preparing the child to educate himself. This preparation embraces a training in the mastery of arts and appliances; a mastery of the means and instruments which contribute to acquisition of knowledge, power, and skill. In school the child is to master the art of reading; to get information from text-books; to discover the sources of knowledge; to learn how to examine the contents of books; and to select the facts and truths desired. He is to learn how to get hidden facts from various sources and authorities; to choose; to compare; to verify the truth. He is to acquire the mastery of the language; to comprehend the meaning of terms and expressions. He is to learn to appreciate the best and choicest language, and to acquire a love for study, research, meditation, and recreation in literature.

In school the child is also to acquire the mastery of appliances, of tools, of machines, of illustrative apparatus, and of the art of experimentation. He is to become acquainted with sources of knowledge in nature, in museums, in institutions of society, in the common fields of human activity, whether of social or business or civic life. He is to become so familiar with these institutions as readily to meet the demands that may be made upon him to do his part, to take his place; and to use all these as agencies in developing his powers and enlarging his possibilities. The school is not fulfilling its mission if it does not bring within the reach of the child all available agencies that may

contribute to these forms of educational activity. The school must send out into the world students and workers who have broad interests, power of adaptation, readiness in application, initative in undertaking, earnestness in endeavor. It is not expected that the school will enable the child to acquire all knowledge, to develop all his power, or reach the acme of skill. After the course of study has been completed there will be much more to learn; after the use of tools has become facile there will be much to be made; after the experiments have been performed there will be much room for invention; after the school library has been well utilized there will be alcoves yet to explore.

We must not overlook the limitations of the school. These limitations are determined by the shortness of the school period, the age and ability of the pupils, and the resources or available funds. We must ever keep in mind that we are dealing with children, and that the school is to open and point the way to the larger activities of life. The school is not to usurp the functions of the library, the museum, or other educational agencies; it is not to invade the province of the institutions of business or social or civic life. There are those who fear that the establishment of class libraries is an encroachment on the public library, but this is not true when the place of the school library is understood and appreciated. No feature of a well-conducted school is an attempt to duplicate the sphere of the institutions of the community. The solution of problems in interest, discount, and stocks is not usurping the functions of the broker; the drawing of models or of plans is not invading the province of the artist and the architect; the study of objects from the natural world is not duplicating the functions of the museum; the study from reference-books or the home reading in literature from the class library is not encroaching upon the domain of the librarian.

As we look back and consider the development of our institutions we find that school activities have had much influence upon this development. The introduction of drawing in the public schools improved art in the home and in trade; the study of nature in the schools stimulated a wonderful interest in the study of museums, public gardens, and public parks; the inauguration of school libraries gave a great impetus to the founding of town and city libraries. Whatever beginnings appear in the schools the community extends in a larger measure in its institutions. Conversely, the features of school instruction are shaped with reference to their relation to later interests and activities in the educational, social, and business world. If the coming generation is to be competent to appreciate and to profit by our institutions, the school must keep pace. If the museums, the botanical and zoölogical gardens, the acquaria, the landscape gardening, the park systems, are to be understood and appreciated, the schools must continue nature study. If the fine arts as expressed in temples, in decoration, in furniture, in tapestries, in textiles, in water-colors and oils, in illustrations, are to be understood and admired, we must continue art and design and color study in the schools. If our home and public libraries are to be utilized and made serviceable as a means of education and centers

of literary culture, we must develop and maintain our school libraries as preparatory steps and as training schools for readers and students. There need be no confusion of the functions of the public school and the public library. They are established institutions supported at public expense and appreciated by a generous people. The school should not attempt to do the work of the library, nor should the library curtail or limit the sphere of the school. Never should the public funds be expended in extending the operations of either into the domain of the other. There should be no duplication of expenditures by these institutions in material or in administration.

There are some questions relating to the establishment and maintenance of libraries which have not yet been definitely settled, as there always will be in the administration of public institutions, especially in the economic aspects of the case. The expenditures for school libraries should be confined to the purchase of books that are peculiarly schoolbooks, appropriate material for the accomplishment of the purposes of the school library. The lines should be tightly drawn against volumes that may better be on the catalog of the public library. Many of our school libraries contain books that need not be there; they are superfluous because they are so seldom read, and because their presence in the school relieves the readers of the dependence on the public library and prevents the establishment of a desirable relation with the public library. The school or class should not be so large and so extensive in scope as to necessitate the machinery and the services of a trained force of librarians and assistants. It should not entail work that is not legitimately the duty of the teacher. However, it is the legitimate work of the teacher to master the administration of the class library in all the uses to which it is to be put as a part of school instruction and training.

The board of education of the city of New York has employed a trained and experienced librarian to organize and direct the management of the school and class libraries, to confer with the superintendents in the selection and grading of books, to aid in the disbursement and expenditure of the library funds, and to instruct teachers in the use and management of libraries in the schools. We believe that greater economy, efficiency, and effectiveness will result from such direction, and that the time formerly taken by superintendents and principals will thus be saved for other duties and efforts in their several fields of labor. The present progress in education has been brought about by differentiation and specialization. School administration has been criticised by those whose only business it is to curtail expenditures, because of the number of specialties introduced and the number of expert directors of special branches. Those of us who realize the value of expert supervision know that the organization of work by experts has resulted in greater accomplishment, in minimizing valueless experimentation, in effecting definite progression, and in greater economy of time and material. Directors of drawing, of kindergarten, of music, of industrial work, of physical training, have saved their salaries over and over again by being able to economize

effort and to save waste. If the library is to become an efficient instrument and factor in school instruction, there must be skillful direction, economic management, definite purpose, and special training of teachers. In cities and towns where public libraries are well developed and conveniently located or distributed, a librarian should become perfectly familiar with the course of study in the schools, and may prepare a graded subject catalog corresponding to the class-room work. He may co-operate intelligently with the superintendent of schools and the teachers, and together they may successfully establish the necessary relation with the school system. In short, the librarian may become the supervisor of the school libraries and the director of the work of the teachers in this branch of instruction. If the subject came within the scope of this paper, I should urge the establishment of similar relations between the public school and the art museum, the natural history museum, and the botanical and zoölogical gardens.

Where a city is unable to maintain school libraries, but is provided with a public library, books in sets should be loaned to the schools for class use. Under such a plan the library can manage the whole system of distribution, etc., and leave to the teacher the pleasant duty of dealing with the books wholly from the standpoint of the individual child.

Under whatever plan this library work is carried on, it is absolutely essential that the teacher be well equipped to manage her library as efficiently as she is obliged to utilize her text-books, her appliances and equipment for other subjects. She should know the bibliography appropriate to the grade of her pupils and to the subjects of instruction; should know where every book may be found; should know the interest value and the educational value of each work. She should also understand the details of library economy and technique to the extent of a perfect mastery of the class-room machinery. In all these matters I think teachers are lacking, because they have not been trained, and because they have not been under expert direction.

It seems that there is an opportunity and a duty that the librarians have with respect to the teachers who are undertaking library work in the schools, viz.:

1. To recognize the place, scope, purpose, and function of the school libraries.
2. To establish a co-operative relation between the libraries and the schools.
3. To become familiar with the courses of study and the syllabuses of the schools, grade by grade, in those subjects with which the books in the library are related.
4. To prepare graded departmental lists of available books in the library for the use of teachers and pupils.
5. To organize traveling sets to be used as class libraries.
6. To organize conferences with teachers on the bibliography of the subjects of the course of study, and on library administration and economy.
7. To visit the schools to examine the libraries and the method of library work.
8. To encourage the establishment of a practical intelligent system of class libraries.

Librarians ought not to lose sight of the fact that the development of the library method in the schools and the extension of school libraries is a means

of extending the possibilities of the public library and enlarging the field of their own activities.

The duties of school officers and municipal officials are equally plain, viz.:

1. To recognize the school and class libraries as legitimate and necessary material of school equipment.

2. To limit the scope of the school libraries to their proper function, and the appropriation for books to an economical portion of school expenditure.

3. To emphasize the value of a school library as a means of training.

4. To establish a natural and co-operative relation between the school and the public library.

5. To supervise the library work in the schools in a measure commensurate with its importance and in equal proportion to the supervision of other branches of school work.

6. To provide for the training of teachers in library organization, technique, and bibliography to a degree equivalent to their training in other features of their school work.

DISCUSSION

Miss Ange V. Milner, librarian, Illinois State Normal University, Normal Ill.—Do we realize the great progress in using libraries that teachers have made in the last ten or fifteen years? We have just heard what the teachers in the large city schools are doing; not what they ought to do, but what they are really accomplishing. Nor are the city teachers alone in this. Equally good work is done along the same lines in the small towns and in the country schools. It is work that requires both interest and skill, and it is all the more admirable because it contrasts so strongly with the ways in which teachers used the libraries such a short time ago. Then, if a teacher co-operated with a library at all, she did so by drawing out the three or four most convenient reference books on a subject, not giving the slightest warning that further information would be asked for by her pupils, and carefully keeping the book until after the demand was entirely over. In the meantime the pupils would flock to the library during the busiest hours, for something on some subject that they evidently found it difficult to express. The dismayed librarians would have to guess what was wanted and hunt up references in a hurry, while the children were discouraged from coming again by the waiting that nobody likes. As for school libraries, in a state where the law required them to be supplied, the county superintendents reported that many teachers did not know how to use them, and did not even take proper care of the books.

It was near the time of the Columbian Exposition that educators began to realize and meet the difficulty. In the early nineties many normal schools which had always had libraries added librarians. The laboratory method of library work increased in the normal and high schools thru the recent appointments of college graduates upon their faculties. Interest in school libraries increased, and books and reading for the children were discussed at teachers' associations and institutes. In 1896 this Library Department of the National Educational Association was organized.

Normal-school librarians had an opportunity to meet teachers in the making, and found that they needed to learn how to use books for their own as well as for their pupils' advantage. Each normal school developed its own method of teaching them how to do both. Since the method of the Illinois State Normal University differs from many of the others, I will describe it briefly. Two lessons for each class of entering students serve as the foundation. The next step is accomplished by means of the reference work accompanying the regular school studies, and is made practicable by the co-operation of the faculty. Pupil-teachers are given individual instruction in the library work required for their teach-

ing. The summer school has a large attendance of experienced teachers. These appreciate weekly lectures, illustrated by exhibits, on the various phases of the formation, care, and use of school libraries. They have also benefited by a pamphlet that we published last fall on the same subject. As in the other normal schools, our efforts are rewarded by good results.

While there is still much to be done for the improvement of school libraries and school-library work by both teachers and librarians, yet it is evident that the efforts of both have been thus far successful. Teachers have made a notable advancement in their use of school libraries and their co-operation with librarians, in the period between the Columbian Exposition and the Louisiana Purchase Exposition.

N. C. SCHAEFFER, state superintendent of public instruction, Harrisburg, Pa.—I have not so much to say for the value of books to the people of the towns and cities, but I have much to say why it is a very important thing that a knowledge of books and a liking for books should be cultivated in the minds of those who live in isolated districts or in an environment presenting few of the things that make for the comfort and elevation of mankind; those who live in the widely scattered farming districts, seldom seeing the face of a neighbor, and particularly the women among this class; those who live in the factory town in one ceaseless grind of mechanical labor; those who spend a large share of their lives in the mines shut out from the light of heaven, or in the quarries where the very existence depends on constant manual labor. These are those to whom the book would come in the spirit of a broader and better life, bringing the best thoughts of the best minds of all ages, counteracting the monotony of what must otherwise be a lonely life.

The library has a double value in giving information as to what we do not know and confirmation as to what we think we know.

PRINCIPAL FRANK COOK, St. Louis, Mo.—I have been very much interested and deeply gratified at the expression of ideals in library work as set forth in this meeting. I will also say that I have been agreeably surprised to find so sympathetic a spirit displayed on the part of the library people. This is entirely different from my experience. One is so often compelled to go without what he does want, or else be satisfied with what he does not want, because of the interminable red tape that is involved in so much of the library machinery.

F. M. CRUNDEN, librarian of the Public Library, St. Louis, Mo., after referring to his early associations with Principal Cook in his high-school days, expressed his regret that anything in library work should make it possible for Mr. Cook to feel and express himself as he did at this time. The St. Louis Public Library gives due heed to the principle that the public library belongs to the people, and that the way by which the people may come to their own should be made as easy as is consistent with economic administration.

After long years of experience and observation, he felt safe in saying that the public library is, by all means, one of the most potent factors in a community for raising the mental and moral tone of the people. When a man is brought in contact with the best in books, he is brought in contact with the best in life. It wakens a love of ethics and its principles. The latent tastes and possibility for good, oftener than otherwise in a majority of people, owe their awakening to the impression made upon the reader by a single book.

DEPARTMENT OF SPECIAL EDUCATION

SECRETARY'S MINUTES

FIRST SESSION.—Wednesday, June 29, 1904

The sessions of the department were held in the Assembly Hall of the Mines and Metallurgy Building of the Universal Exposition. The department was called to order by President J. W. Jones, superintendent of the Ohio State Institution for the Deaf, Columbus, O.

The following program was carried out:

I. President's address, by J. W. Jones, superintendent of the Ohio Institution for the Deaf, Columbus, Ohio.

II. "What Teachers May Learn from the Model Schools of the Deaf and Blind and Their Exhibits," by S. M. Green, superintendent of the Missouri School for the Blind, St. Louis, Mo.

III. "Sight and Hearing in Relation to Education," by Oscar Chrisman, professor of paidology, Ohio University, Athens, O.

Informal discussion followed by Dr. D. P. MacMillan, director of the Child Study Department of Chicago Public Schools, and R. C. Spencer, president of the Wisconsin Phonological Institute, Milwaukee, Wis.

The president appointed as Committee on Nominations:

Mary R. Campbell, Chicago, Ill. Percival Hall, Washington, D. C.
S. M. Green, St. Louis, Mo.

SECOND SESSION.—Friday, July 30

The department met at 2:30 P. M., and was called to order by President Jones. The following was the program of the session:

I. Report of the Committee on Statistics of Defective Sight and Hearing of Public-School Children, by Percival Hall, professor of applied mathematics and pedagogy, Gallaudet College, Washington, D. C.

II. "The Chicago Hospital School for Nervous and Delicate Children—Its Educational and Scientific Methods," by Miss Mary R. Campbell, secretary of board of trustees and educational advisor for the Chicago School of Special Education, Chicago, Ill.

III. "The Teacher and the Defective Child," by Dr. M. A. Goldstein, editor of *The Laryngoscope*, St. Louis, Mo.

Officers for the ensuing year were elected as follows:

For *President*—Miss Margaret Bancroft, head of Haddonfield Training School, New Jersey.
For *Vice-President*—J. H. Freeman, superintendent of the Illinois School for the Blind, Jacksonville, Ill.
For *Secretary*—Miss Anna E. Schaffer, state supervisor of schools for the deaf Wisconsin.

The department then adjourned.

Elizabeth Van Adestine, *Secretary*.

PAPERS AND DISCUSSIONS

PRESIDENTIAL ADDRESS

J. W. JONES, SUPERINTENDENT OF THE OHIO INSTITUTION FOR THE DEAF, COLUMBUS, O.

I wish to express my appreciation of the honor conferred upon me by my election to the presidency of this department. Special education has its place in our great school system, and it is right and proper that those engaged in it should meet for exchange of ideas. By "special education" we mean the education of special classes, usually known as defectives, such as the deaf, blind, feeble-minded, and those both deaf and blind; rather than the education of the normal child in special subjects.

Our work, then—what is it? How are we progressing as compared with teachers in the ordinary schools? Our pupils—what of their gain as compared with what it would be in the ordinary school, and what is the organization of our schools as compared with the organization in ordinary schools? These are all interesting questions.

Schools for special education are for the most part state or city schools, whose pupils are generally surrendered by parents for the term, and whose conduct in and out of school is supervised by the teachers of the school. The child's life at once becomes systematic and regular, with wholesome food, sufficient play, an abundance of sleep, diversified work, regular study, and punctual attendance in school. These advantages are not fully recognized and appreciated by educators. It is impossible to secure them in ordinary schools, where children are responsible to their parents out of school hours. To one who has had experience in watching results in special schools, where the management controls in and out of school, the advantages seem so superior as to make him wonder if the question is not of sufficient importance to engage the attention of educators generally. In special schools also is found a much greater variety of instruction than in ordinary schools. In addition to a varied curriculum of studies are found all kinds of manual and industrial training, a complete art school, a gymnasium, instruction in domestic science, fancy needlework, music when the pupils can hear, trade schools, and specialties of almost all kinds, where few or many pupils are taught to be useful and self-supporting. The sense of which the children in these schools is bereft is compensated for, in a measure, by the varied opportunities to develop the remaining senses.

The manual training affords a wonderful help to these children in both their physical and mental development. They return to their homes for vacation, and parents note the ease with which they can turn their hands to doing things. This is especially true of the deaf children. It is not an uncom-

mon thing for parents to say that their deaf child is more useful and helpful than any of their other children. Children from special schools usually go back to their homes better housekeepers, have more modern ideas, and exert an influence for better things. From this we conclude that the state could afford to do more in the ordinary schools to train the hand and eye to work in unison with the mind. This will cost more money, but it will make more efficient men and women, and the state will have its return for the increased expenditure.

It is true that there is a larger percentage of objectionable children in our special schools, and that the average of intelligence is, even in the schools for the deaf and blind, not as high as is found in the ordinary schools, for the reason that the causes which destroy sight and hearing often affect the mentality as well. It is also true that when the sense only is affected the mind is quickened and intensified, the character becomes beautiful, and the disposition sweet. It is a joy to have such children as pupils. The deaf children are especially attractive and interesting. I am told by those who work with the blind that their perception is keen, their ideas are often original, and their memories are so strong that it is a pleasure to teach them.

It is not expected that the feeble-minded can be educated to a high standard; the fact of their mental weakness makes this impossible. Many, of course, cannot be educated at all. But, in proportion to the ability and expectancy, these unfortunate children are far better off in special schools than they could possibly be in the ordinary school or at home.

The work of educating the special classes is very important. One of the necessary conditions is their segregation. Under the plans adopted and methods pursued in all of our states and a few cities, we see the deaf and blind highly educated, sometimes in general knowledge, sometimes in special lines, but always to the point of usefulness. They do not become beggars, but become industrious and self-supporting citizens, able to maintain their families and to educate their children. When you see a deaf or blind person begging, you must not think he represents his class; for he is the rare exception, and in all probability was never in a special school. These habits are sometimes taught by indolent and thoughtless parents; but when the child goes to school he is too proud of his acquirements, when he returns to his home, to acknowledge in any way that he is not capable of taking care of himself.

There are many reasons why the pupil in special schools are proportionately better educated, considering their disadvantages, than are the children in the ordinary schools. We have already spoken of regular attendance, regular study, systematic living, diversified opportunities, manual and industrial training. Teachers are generally much more carefully selected, and their preparation and work are more carefully supervised than in ordinary schools. This is especially true in a state school, where the superintendent has the entire field from which to make his selections, and is free from local influences which often secure the appointment of incompetent persons as

teachers in the ordinary schools. The services of good teachers once secured, the tenure of appointment is almost certain, the remuneration is satisfactory, and the results are bound to be the best.

Teachers in the ordinary schools are always interested, surprised, and pleased when they visit the special schools. They are at once struck with the thoroness of the work done and the satisfactory results secured. They learn the value of simplicity and illustration. They see the full force of objective teaching. In the special school they see the object, the action, the thing done; and then they watch the mental process of the child to express in English what the eyes have seen and the mind has thought. It has taken time, but no energy has been lost; something has been done. They also find these special schools better equipped with working material, hand-made charts, useful pictures, supplementary books, and the like.

Not only in the detailed work of instruction do the special schools keep abreast of the times, but the work as a whole is aided by discoveries growing out of scientific, sanitary, economic, and sociological investigations. The attention of those interested in these discoveries is called to the papers to be presented in this meeting.

I desire to call your attention especially to the advanced step taken in the Ohio School for Feeble-Minded Youth for the care of the adults of this class. The able superintendent of that institution, Dr. G. A. Doren, who has had charge of the institution since its founding, nearly fifty years ago, has succeeded in having the state legislature provide a custodial farm of sufficient acreage to give employment to the adult feeble-minded of the state, and in such a way that the sexes are entirely separated, not only from each other, but from society at large. The prime object of this movement is to prevent the propagation of their own kind. As statistics show that the offspring of the feeble-minded is almost always imbecile, this is doubtless a great step toward lessening the percentage of this unfortunate class of people, and in time the expense of maintaining schools for such children may be lessened. But whether it be or not, the good of society is served by this segregation, and the welfare and happiness of the feeble-minded themselves are greatly increased.

The advanced work in speech and in lip-reading which the deaf schools are accomplishing, and the increased opportunities for the education of those who are both deaf and blind, as exemplified by Helen Keller, Tommy Stringer, Oren Benson, Leslie Oren, and many others, show the efforts that are being put forth by these special schools to better the condition of all classes and to restore to the light of the world those who would otherwise spend their lives in darkness and misery.

WHAT TEACHERS MAY LEARN FROM THE MODEL SCHOOL FOR THE DEAF AND BLIND, AND THEIR EXHIBITS

S. M. GREEN, SUPERINTENDENT MISSOURI SCHOOL FOR THE BLIND, ST. LOUIS, MO.

In the advance in recent years of educational spirit and methods to the point where the whole child is considered, where his body is trained as well as his mind developed, where his social and ethical impulses are directed by a sound judgment, we approach the ideal training of the young citizen-to-be for the duties and relations of future citizen life.

In schools for special classes of pupils, such as the blind and deaf, this advance is of special beneficence, tho the problems encountered are not so easily solved as in schools for the normal child. Such training of faculties and powers as equip the child for self-support is for the defective classes a problem unsatisfactorily solved and subject to constant revision.

The teacher of the normal child, as he approaches the work of the deaf and the blind, may be greatly helped by observing the mental processes and intellectual tendencies of the two classes so handicapped in the acquisition of knowledge.

As by far the greater number of sense-percepts come thru the eye, the blind child has a much more narrow basis of knowledge than the deaf child, compares and classifies his percepts more frequently, knows what he knows more thoroly, and is more dogmatic in his expression of the truth so gained. He early becomes accustomed to a mental visualization of his percepts, which can be greatly utilized by the teacher in leading him to the unknown; for it is to this intuitive grasp of the idea, and its ready expression in language, so difficult for the deaf, that the blind child owes his intellectual life. "It is the soul that sees." It is then not surprising that, as the words come trippingly from his tongue, the blind child overrates his acquisition, while the deaf child, with his brain flooded with sense-percepts—gained thru the eye, usually lacking the concentration common to the blind, who have not these distractions—understands the thing seen and its relations, but does not always compare and classify, or pass to the abstract contemplation of the idea. With his brain a confused register of sense-impressions, he cannot translate his knowledge into terms intelligible to others, and becomes distrustful of his ability to apprehend the idea, which he is unable to clarify by expression in language.

The deaf child has the idea; the blind child, too often the sign of the idea. The beneficent results of developing the whole child, by the manual work and domestic-science occupations, are especially felt in schools for the blind and deaf. Limited as is each class in sense-activity, the wholesome effects are particularly felt by the blind child, who finds the outer world unfolding to him as successive, not simultaneous, acts of sense-perception, as in the

case with his deaf brother. His own activity makes the idea vivid. To put the sloyd hammer in his hands gives him a clear-cut idea of the tool itself; and to use it opens a new world of activity. If the first tendency in using be iconoclastic, it needs only direction to become constructive.

The making of the flower-stands, the picture-frames, the chairs, opens to him the joy of self-expression, and regarding those objects, at least, no more are his ideas formless and inaccurate. The blind girl, in sewing and using the utensils of cooking, has now the clear-cut idea made vivid by her own participation in the process of construction, and no longer the word, as the vague symbol of thought, is the sole fruit of her efforts. The joy of becoming a useful member of the family and sharing in the world's work transforms existence to a class hitherto assigned to the chimney corner. This training of the hand and the muscles awakens the motor center of the brain, and stimulates neighboring areas, producing more normal activity, which results in clearer and more sustained thinking power.

The deaf child, with its wealth of percepts gained thru the eye, is baffled in his attempts to use the symbols of thought, his ideas becoming vague from the inability to clothe them in fitting language, demonstrating to us how language does clarify thought.

Right here I would suggest that the great deficiency in the instruction of these two classes of pupils is the lack of nature study. The sense-perception of the blind may be greatly increased by introducing into the school more science study—not the dry formulas and theories, but the vital facts which they may classify and compare themselves. The blind child needs to go to the fields to know his neighbor birds and flowers, to gather the common plants and grains, to learn the size and varieties of animal life, to observe the variations of temperature, moisture, and direction of the wind from his own observation, not the hearsay of others.

To show that this can be done, I cite a class of blind pupils, of which five gathered, classified, and mounted 358 specimens of insects, the only aid given being that which was rendered by younger seeing children in catching specimens. One pupil, E. H., aged eighteen, analyzed and dissected plants and flowers, discovering all parts that could be seen without the aid of the microscope, by his sensitive fingertips. This work was done under the direction of an enthusiastic teacher, whose excursions with pupils to the country and morning trips to the park were intellectually stimulating and recreative. Who can estimate the value of the knowledge so gained in correcting and removing inaccurate ideas of plant and bird life? This abundance of material so gained can be used to develop power of expression for the deaf, training him into easier use of the symbols of thought.

The nature work will cultivate for the blind an exact habit of thought, which he needs to substitute for his irregular emotional mental habits. The blind pupil can accomplish the prescribed amount of culture studies—history, literature, civics, and ethics—in the same time as his seeing brother, but is

physically barred from laboratory and microscopic work, which the deaf may perform, while the culture studies supply the deficiencies noted in the sympathetic, emotional nature of many of the deaf.

From the written work of the exhibit, we find that one class of eight furnished 307 absolutely perfect papers in language and history in eight months, not one dot of which is out of place. The accuracy and neatness here displayed count for much in the daily life of the pupils, who have probably themselves received greater benefit from the exhibit than those who examine and admire.

From the pictorial exhibits, we find the play-life to be that of normal young people, as we see them playing games, giving physical-culture drills, entertaining by programs of musical and literary efforts, and entering into all the regular pleasures of youthful life.

In the matter of trades taught for self-support, the great problem of after-student life, the deaf outnumber the blind—about five to one—as there are so few occupations which can be followed by the blind without the help of seeing people. The broom trade is one, and is especially adapted to the Middle West, where the corn is grown. Piano-tuning is necessarily limited to those having a musical education. Musical talent, contrary to the popular idea, is not an invariable attendant of blindness.

In the courses of study, music, manual training, and art are offered to these two classes of pupils; the girl or boy without musical talent, or talent for drawing or painting, may find development in the manual training, and not be kept where progress is impossible and special talents are not recognized.

The girl who has not talent for music or other arts may find her greatest delight in domestic science, and in mastering the problems of the kitchen and the table.

The teacher who leaves this exhibit without feeling that there are many avenues to reach the child and further his development, and that his individuality should be studied and conserved, has missed much of its lessons.

The instructor of the seeing child is helped by his study of these schools to determine what variation his pupil makes from the normal pupil; whether he needs more observation work or more imagination culture; whether logical and reflective studies, or those with a social sympathetic basis, are required, that he may set to work to remedy or remove the deficiency; not to label the child stupid and to consider him hopeless.

SIGHT AND HEARING IN RELATION TO EDUCATION

OSCAR CHRISMAN, PROFESSOR OF PAIDOLOGY, OHIO UNIVERSITY, ATHENS, O.

Perhaps the first examination of the sight of school children was made by Cohn at Breslau, Germany, in 1865, and of the hearing of school children by Reichard at Riga, Russia, in 1878. Since that time there have been quite

a large number of school children examined as to sight and hearing, and it has ever been found that a large percentage have defects of sight and hearing which greatly affect the work of the school. Notwithstanding the importance of these two senses in education, it is surprising to learn how little is being done to ascertain their condition among school children. The committee which was appointed by this Department of Special Education for the purpose of collecting data in regard to defective sight and hearing, in their report to you of last year, 1903, state that a special circular of inquiry was sent out in this country to the superintendents of schools in cities of more than 25,000 inhabitants. "The circular was sent to 160 superintendents, seventy-eight answers were received, but in nineteen cases only were any statistics reported." From this we are led to conclude that the number of schools in this country that are examining the sight and hearing of the children are very few. And yet every thinking man and woman today believes that there should be frequent physical examinations of school children, and many hold that every school should have a medical examiner connected with it. This is surely coming, and yet how slowly it comes! In this audience are people from different sections of this country. How many of you know of a single school where some kind of examinations or tests are not regularly held in the subjects taught? But do you know of a single school where examinations are regularly made of the eye and ear and nose and throat of children with tests of sight and hearing? Yet, which examinations are of most importance to the welfare of the child?

The medical people are becoming active in this matter and are doing much to bring about a change in this respect. At the meeting of the American Medical Association at New Orleans in May, 1903, thru the efforts of Dr. Frank Allport, of Chicago, the following was adopted:

WHEREAS, The value of perfect sight and hearing is not fully appreciated by educators, and neglect of the delicate organs of vision and hearing often leads to disease of these structures; therefore, be it

Resolved, That it is the sense of the American Medical Association that measures be taken by boards of health, boards of education, and school authorities, and, where possible legislation be secured, looking to the examination of the eyes and ears of all school children, that disease in its incipiency may be discovered and corrected.

In reference to this resolution, Dr. Allport wrote me under date of May 26, 1904:

This resolution has already been adopted by the Mississippi Valley Medical Association, and the state medical associations of South Dakota, Michigan, Montana, Delaware, Minnesota, Colorado, New York, California, Alabama, Utah, Illinois, and Connecticut. The resolution has also been adopted by the American Public Health Association, and the state and provincial boards of health of North America. The following state boards of health have passed the resolution and are taking steps to put the plan in operation in the fall: North Dakota, Rhode Island, Alabama, Illinois, Montana, New York, Indiana, Connecticut, Minnesota, Kansas, Colorado, and Ohio. The state legislature of Connecticut has taken up the work, and children are examined in that state under the state law. The resolution has also been passed by the state boards of education of Texas, Kansas, Minnesota, and Colorado.

Civilization is laying great burdens upon the eye and the ear. In city life especially must the innumerable noises be very hard on the hearing apparatus of the young child, greatly affecting the delicate parts; and not only affecting the ear itself, but also the brain connections therewith. The eye is yet even more affected by the demands of civilization, for perhaps no other organ has had heaped upon it so many new things by advanced civilization as has the eye, and it has hardly been able to keep pace in its growth and power of adjustment with the increase of the demands. Whether or not civilization has brought on an increase of abnormalities of these two sense-organs may never be fully known, but no one can doubt that the increasing demands made upon them must have aggravated any original abnormalities to such an extent with the child of today as to demand our careful consideration.

Just what number of children in any given schoolroom may have defective sight or hearing can be ascertained only by careful examination; but the teacher may be sure that there are several. The latest gathering of statistics has been by your committee, who find that returns from their inquiries show "that large numbers of children in the public schools are handicapped in their progress thru school by defective sight or hearing."

By the statistics gathered from various sources, it is clearly shown that a large number of school children have defective sight and hearing. Perhaps the best and most conclusive examinations of the sight and hearing of school children made in this country are those of the Chicago Child Study Laboratory. The results obtained in these examinations are in some ways different from those obtained elsewhere. As they are most carefully made, they bear much weight and deserve our highest regard.

In his two articles on sight and hearing in the *Journal of Adolescence*, giving reports from the Chicago Child Study Laboratory, Professor Krauskopf shows that upon first entrance to school at six years of age 32 per cent. of the children were found with defective sight, and 26 per cent. with defective hearing. He shows in the highest form of defective sight, 20–30 of normal vision or lower, and of defective hearing, 3 or more points below normal, that there is a very rapid increase in the percentage of defectives until the highest point is reached not far from the ninth year—before the ninth in hearing and after the ninth in sight—and then as rapid a decrease till the lowest point is reached not far from the thirteenth year—before the thirteenth in hearing and after the thirteenth in sight—which goes lower than that upon entrance to school. Then a slight rise takes place, till at the close of the high school the percentage of defectives is about the same as upon entrance to school. In the lower forms of the defectives there is shown a difference in these two senses. In sight there is an increase of defect from entrance upon school all the way through school life, while in hearing the lower forms show rise and fall as in the higher form, but at end of school life there is a higher percentage than at beginning of school life.

The great fact brought out by these Chicago investigations is the very

rapid increase of defective sight and hearing in the early school years of the child, which culminates not far from the ninth year. This is a remarkable time in the life of the child, for other troubles show strongest about this year. At this time the brain has about reached its full weight, and in its development is changing from increase in size to increase in function. This is also the time of the greatest susceptibility to fatigue in the life of the child; for near this year there is a sudden growth, which is not shared by the heart, so that it does not keep pace in growth, while the extra strain on it causes dilation and great fatigue when exertion forces the heart to do more work than it can rightly accomplish. The maximum weight of the spleen in proportion to the body comes at this time, but just what that means is not determined. At this year, too, the child has yet about half of his temporary teeth remaining, most of which are in bad condition, thus preventing proper mastication of food, and frequently keeping the child from eating sufficient amount of food because of pain from the bad teeth. All these conditions lower the general tone of the child's system, and, with the adenoid and catarrhal growths and the various infectious diseases of childhood, act upon these two senses of sight and hearing so as to increase the bad condition which school work aggravates.

Whether the school greatly affects these two senses in older pupils may be a question, but there surely can be no question that it does cause an increase of defects in the early school years. This is well shown in nearsightedness. Most young children are, perhaps, farsighted, but, strange to say, in their work they often bring objects near to them, so that they may be counted as normal or even nearsighted. With proper care, it is held, such children could be saved from much nearsightedness, if not wholly from it. School work requires close application, and this, when continued, so affects the plastic eye as to change it and pass it from farsightedness thru the normal stage on to nearsightedness. It is held that the learning to read by the young child requires the same amount of eye-strain and exertion as the learning to use the microscope by the older people. If this is true, it can readily be seen that the growing eye is greatly affected thereby. Some teachers have been convinced that reading, writing, and the like, should not be begun by the child until he is at least ten years of age. Not only is the actual reading itself a heavy strain on the child, but there also goes with it the getting of the thought, keeping the place in the book, holding the book properly according to the teacher's views, and other requirements which worry the child and help to keep up the strain on him and so react on the sight. Not only may the child's defective vision cause him to take a position that the teacher may deem awkward, but even the position of the eyes in the head may make it imperative that he hold his head differently from others. Thus Stevens in *Popular Science Monthly* (Vol. LIX, pp. 390–401) shows that the long head has a low plane of vision, and so holds the chin up and head back; and the broad head also has a low plane of vision, but not quite so low as the high head, and the head goes back; while the tall head has a high plane of vision and carries the forehead forward,

making the head turn down. Such positions are to lessen the strain on the eye muscles, because of the need of elevating or lowering the eyes to get the proper plane of vision.

The important part that sight and hearing bear in education requires that the eye and the ear be in good condition, and with children that are defective n these senses all possible should be done that would help them in their work. The eye is of special importance because of the great amount of work required of it and of its assistance to the hearing. We are scarcely aware of the great help the eye gives to the ear—especially that given in understanding spoken language thru lip-reading. Without proper examination, neither teacher nor parent nor even the child himself may be aware of the defect, or at least of the extent of it. This is because such a child does not always show the same degree of defect, and in hearing he usually turns the better-hearing ear toward the one speaking, and thus at times shows much better hearing than at others. Also the latent power in these senses is brought into play at moments of great interest, and so gives the child almost the appearance of normal-hearing children. Again, the child is not aware of his defects, and considers that he has the usual sense-power, that he is not different from other children, that all children see and hear as he does, and so he makes no complaint. This is well illustrated by the following from Krauskopf:

> In testing some three hundred graduates of the secondary schools of Chicago, a number of them were found suffering from marked defects of vision of which they were entirely unaware. Supposing that others had the same difficulties in seeing objects as themselves, they had finished the entire course of the city schools without realizing how seriously they had been handicapped.[1]

Defective sight or hearing in children is quite hurtful to good school work. A child so afflicted fails to understand, because he cannot see or hear properly, and so loses interest and becomes indifferent. He then is designated as lazy or stupid by his teacher. He cannot do his work quickly, and so must make slow progress, until in the grammar grades many cases are found of children below grade; that is, children whose ages should place them in a higher grade than that in which they are classed. In every instance of investigation of sight and hearing, the dull, the lazy, and the stupid children of a grade have been found to be in most cases defective in sight or hearing, or both. Some investigators go so far as to claim that every dull child has defective sight or hearing, or both. Krauskopf sums up the Chicago results thus:

> Chance plays but a minor part in pushing the pupil above grade, so that this group of advanced pupils are for the most part of exceptional ability; while many causes besides mental deficiency may tend to keep a child back in school, and the group below grade will not consist entirely of dull pupils. Notwithstanding this, and in spite of the fact that hearing is only one of the many factors that might affect the child's school standing, there is no point where those below grade are not on the average distinctly inferior to their more fortunate companions.[2]

Such defects, too, have great influence upon the character of the child.

[1] *Journal of Adolescence*, Vol. I, p. 198. [2] *Ibid.*, Vol. II, p. 105.

His inability to see or to hear well causes him to lose interest and to become careless, and, if punished by his teacher, he feels that he is wronged, yet without knowing the true conditions; hence, he perhaps grows stubborn or morose, or, worse yet, becomes filled with the feeling that all is against him, and so loses hope and falls away too often into that number who become truants or criminals. This is well shown in that the tests on the boys of the John Worthy School in Chicago—a school for truants and the like—showed these boys to have greater defects than the children of the public schools and even of those below grade.

We all believe, I am sure, that there should be stated and careful examinations made of the eye, the ear, the nose, and the throat of all school children, and tests of the sight and hearing. Such ought really to be made by specialists and not left to teachers. Yet for the present we have not progressed sufficiently to feel the need of specialists, and so the teacher will have it to do if it is done. The teacher may make the simple tests of sight and hearing which will be of much help, especially in gaining a better knowledge of the dull, the backward, and the bad children. Dr. Allport has worked out plans whereby this can be carried on by teachers, and, as mentioned before, thru his efforts these plans are being introduced into the schools of this country.

Where tests of sight and hearing have been made in schools, there usually follows a reseating of the children, so that those with defective sight or hearing are given seats more favorable to them for seeing and hearing, and the parents are notified of the condition of their children. But simply seating the child in a more favorable locality only partially accomplishes the results needed. He should be carefully studied so that his condition may be well known all the time, and he should be taught in such a way as to give him every opportunity for growth and improvement; and this really can be accomplished only by specially trained teachers. Also the notifying of parents will not necessarily end in just the improvements needed, but the school authorities should work with the parents in this matter, and should see that all is done for the child which is needed to be done. That parents may be well-meaning, and yet fail properly to look after these needs, is seen when in tests made on sight of children glasses worn by the children were frequently found to be of no use to them, and indeed in many cases were really injurious, the parents having failed to have examinations made and glasses changed as frequently as needed.

Should the teacher be prevented from testing the sight and hearing, even by the simplest methods, because of prejudice on the part of the parents and school authorities, he may learn much by quiet observation. He should from day to day take careful notice of his pupils, and especially so of all dull, vicious, and lazy ones. By carefully noting of pupils, habits will be found which may lead to the ascertaining of the defects. Notice if pupils are in the habit of keeping one side of the head usually turned to the one speaking or reciting, and if at times when this side is turned away the pupil comprehends as well and quickly as at the other times; also see if such pupils, when deeply interested in

something being told, can withdraw their attention to something else as quickly as can the other pupils. Pupils who cannot do this probably have defective hearing. Note if there is frequent wrinkling of the forehead as if frowning, throwing forward of the head, turning about to catch a better focus, and holding work close to eyes; if frequent headaches occur, and if in reading a child persists in mispronouncing words which it is certain he knows. Such may arise from defective sight. In dictation exercises and copying of work from the board, if frequent mistakes are made, they are pretty certain to arise from defective sight and hearing. If a child has a dull, expressionless face; if he keeps his mouth open; if his face is flat, as tho deformed, with almost an idiotic stare upon it; and if such a child is disturbed by bad dreams, snores at night, is addicted to nightly bed-wetting, such facts pretty well determine that the child is a sufferer from adenoid growths. Thus the teacher may find the defective children of a schoolroom, and yet it must be known that there are children whose defects can be learned only by careful tests by a specialist; and even in some cases the specialist may be unable to learn the extent of the defect.

Since the state provides the school buildings and appurtenances, and then compels the child to attend the school, the state should supply the child with means to keep up and improve his physical being, and to prepare him and keep him in condition to do the work required of him by the school. Therefore the state should carefully examine every child, and see that he gets proper treatment for his defective sight and hearing, and that he is provided with whatever he may need to make it possible for him to see and to hear the work he is to do.

A very different classification of school children should be made than is the custom now. Instead of wholly classifying on the basis of mental aptness, there should also be a classification according to physical capacity and condition. In sight and hearing, the children should be carefully examined and classed according to the degree of these senses possessed by them, and frequent examinations should be made and frequent changes in classification, as children improve or become worse in these senses.

Teachers in the common schools have very much yet to learn from you teachers in special education. Teachers should be carefully trained to instruct children of different degrees of sight and hearing, and to know how to help them to improve physically as well as mentally. The school of the future will be filled with experts, not only in subjects and methods, but also in knowledge of children. The children will be carefully studied and examined, and classified according to physical and mental conditions, and teachers specially trained will take charge of special children, just as at present in our special education we divide into the blind, the deaf, the deaf-blind, the feeble-minded, and the like, and further divide these into classes and groups, and have specially trained teachers to take charge of the special classes.

The patience and close work in the training of feeble-minded children

should be used in the training of children in the common schools. As careful a study should be made of each normal child as is now made of each abnormal child. The physiological method of Seguin needs to be applied to the children in the common schools, and especially to young children; and not till such is the case can our children receive such care and training as they need properly to develop their being.

REPORT OF THE COMMITTEE ON STATISTICS OF DEFECTIVE SIGHT AND HEARING OF PUBLIC SCHOOL CHILDREN

To the Department of Special Education of the National Educational Association:

The Committee on Statistics of Defective Sight and Hearing of Public-School Children, appointed by this department of the National Educational Association at the meeting of 1902, at Minneapolis, Minn., made a most interesting report at the Boston meeting last summer, giving statistics which were collected for the committee thru the Bureau of Education.[1]

It was found that out of 34,426 pupils examined in six cities, 13.4 per cent. were seriously defective in sight; and out of 57,072 pupils examined in seven cities, 3.6 per cent, were seriously defective in hearing.

These percentages, obtained from a comparatively small number of pupils, and varying greatly, as the report showed, in different cities, cannot be taken as a definite basis for computing the number of such defective children in the whole country; but they certainly point out most plainly a state of affairs which calls for uniform and methodical examination with the view of alleviating present troubles, of finding out the causes of the defects discovered, and of checking them, if possible, in the future.

The report of last year's committee was accepted, and the committee was enlarged and continued, with the suggestion that methods of testing the sight and hearing of school children should be investigated.

The present committee, before beginning active work, endeavored to obtain the assistance of the Bureau of Education in sending out queries and gathering further statistics; but, on account of the great pressure of work at the bureau because of preparation of the great exhibits for the exposition, the Commissioner of Education felt unable to offer the assistance sought.

The idea of testing the sight and hearing of school children is by no means a new one. In some cities, such as Worcester and Chicago, much systematic work of this kind has been going on for years, but from the statistics gathered last year it was clear that in a great many cities nothing was being done. Therefore the committee, to stir up interest in the work, sent out the full report of last year's committee to superintendents of public schools in about 125 of the largest cities of the United States.

[1] *Proceedings* of the National Educational Association for 1903. A full report, with a valuable appendix, is published in the advance sheets of the Report of the Commissioner of Education for 1902, chap. 46.

It was decided that the committee itself, by experimenting for a short time with various tests, would not be able to obtain results of any value compared with those already obtained in several places where different kinds of systematic tests of the sight and hearing of thousands of school children have been carried on. Therefore the following set of questions was sent out to the superintendents of schools of every city of the United States of 30,000, or over, inhabitants.

1. What method or device is used to test the sight of the pupils of the ——— public schools?

2. What method or device is used to test the hearing of the pupils of the ——— public schools?

3. By whom (whether by specialists or by the teachers of the pupils examined)are the tests made?

4. In case preliminary tests are made by teachers, are the pupils found defective when tested by specialists?

5. Are the kindergarten children, or children unable to read, tested to determine defects of sight, and, if so, what device is used?

6. Do you consider the watch test a proper and sufficient one to be used by the teacher to determine defective hearing?

7. Have you ever used methods, other than those given above, of testing sight and hearing? If so, why did you change?

8. What are the main causes of defective sight among your school children?

9. What are the main causes of defective hearing among your school children?

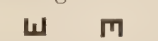
These questions were sent out to 135 cities, and fifty-five replies were received. In twenty-eight of these cities formal tests of the sight of children able to read are made periodically; in nine others informal tests are made by hearing the children read, by using charts, and by general observation.

In twenty cities formal tests of hearing are made at regular intervals; and in twelve cities informal tests are carried out by means of conversation, reading, and general observation.

In only nine of the fifty-five cities replying are the kindergarten children, or those unable to read, tested for defective sight.

Snellen's standard test types are employed in nearly all cases for testing sight. It has been pointed out by several authorities that this test is not sufficient for detecting "farsightedness," neither is it a test for color blindness, and some other defects of vision, and in a few cities additional devices are employed to make the test more complete. However, the test by means of Snellen's types, simple color tests, and observation on the part of the teacher as to the causes of headaches among the pupils have, in several cities, led to the detection of nearly all cases of defective vision.

Testing the sight of kindergarten children, or those unable to read, is successfully accomplished in Chicago and other cities by means of the illiterate, or "*E*" test, which consists of placing an *E* in different positions



at fixed distances, and requiring the child to place an *E* in the same positions. Naming familiar objects at fixed distances, and recognizing or reproducing

simple geometrical forms from given distances, are other tests that are employed with young children.

A majority of the replies to the committee's questions shows that testing the hearing by means of a watch is not satisfactory. In Chicago the watch is supplemented by the use of the voice, a "clicker," and the audiometer. In Worcester the ordinary voice is used. In all cases where defects of hearing are suspected it is clear that the teacher's observation must count as a part of the test.

The reported causes of defective vision are numerous. It is of much interest to note that only one reply gives bad lighting of schoolrooms as a cause. Lack of proper ventilation, lack of outdoor life, bad postures in sitting, the habit of holding books too near the eyes, poor print, and the constant use of the eyes, are all given as causes, every one of which nearly all teachers are aware of, but noted here because the removal of these causes lies largely with the teachers and principals of the schools.

The causes of deafness as given show little connection with schoolroom life, and their prevention lies rather in the hands of parents and physicians.

A fact worth attention is that the state of Connecticut requires tests of the eyesight of school children every three years by means of Snellen's test types.

In Philadelphia, Jersey City, and Yonkers regular medical inspectors or specialists test the sight and hearing of all school children. In New York and Boston, while every child is not tested, all backward children are given a thoro examination by specialists. In Chicago a regular child-study department is maintained, the head of which has charge of the work of testing the sight and hearing of the children.

At the last meeting of the American Medical Association the following recommendation was passed:

> *Resolved*, That it is advised by the American Medical Association that measures be taken by the various school authorities and boards of education, boards of health, and, if possible, state legislators, to secure examinations of the eyes and ears of all school children in this country, with a view to suitable treatment for the relief of opthalmologic and otologic imperfections.

In conclusion, the committee reports that it believes periodical tests of the sight and hearing of all school children, including those in the kindergartens, should be made in every city of the United States in order to discover cases of defective vision and hearing.

It believes that these tests should be conducted, where possible, by regular medical inspectors or specialists, but that they may be conducted satisfactorily by the teachers, if they themselves are first instructed by a specialist.

It believes that the parents of all children who are thus found defective should be notified, and the child, if examined first by a teacher, should be sent to a specialist. As many of the defects of sight are directly caused by school life, it does not seem proper to leave the matter to the authority of parents alone.

APPENDIX

A

Cities in which regular tests of the sight of school children are made: Atlanta, Bridgeport, Cambridge, Camden, Chicago, Cleveland, Denver, Duluth, Elmira, Grand Rapids, Jersey City, Little Rock, Lowell, Milwaukee, New Haven, New Orleans, Philadelphia, Rockford, Saginaw, San Antonio, Somerville, Superior, Trenton, Utica, Waterbury, Williamsport, Worcester, Yonkers.

Cities in which regular tests of the hearing of school children are made: Atlanta, Cambridge, Camden, Chicago, Cleveland, Denver, Duluth, Grand Rapids, Little Rock, Jersey City, Lowell, New Haven, Philadelphia, Rockford, Saginaw, Superior, Trenton, Utica, Worcester, Yonkers.

Cities in which kindergarten children are tested for defective eyesight: Camden, Chicago, Cleveland, Duluth, Lowell (in some of the schools), Phildadelphia, Trenton, Utica, Yonkers.

Any one desirous of obtaining detailed information as to how tests are carried on in these cities will find much interesting matter in the report of last year's committee. School superintendents are also usually very glad to supply all the information they can.

B

Examples of notices sent to parents when children have been found defective in sight or hearing.

DULUTH PUBLIC SCHOOLS

OFFICE OF_____SCHOOL.

MR. and MRS._____.

By request of the board of education, your child, with many others, has been examined by Drs. Titcomb and Collins for eye, ear, nose, and throat trouble.

As a result of this examination ——— is found to have sufficient trouble with the ——— not only to compel —— to work at a great disadvantage, but also to menace the child's best development and be a cause of ill-health.

The board of education herewith urges you to have this matter attended to by some competent physician or specialist, believing that it will result greatly to the benefit of your child.

Yours respectfully,

_____, Principal.

WORCESTER, MASS.,_____190–.

_____

By vote of the school committee, the superintendent of schools has been authorized to have tests made annually of the sight and hearing of all pupils in the schools. This is done by the principals of each school under the direction of competent physicians.

The sight of_____has been found below the standard deemed necessary for the proper execution of school work. It is advisable that you consult a physician (not an optician). Trusting that you will co-operate by having an examination made at once, I remain,

Yours truly,

_____

_____School.

By order of the school committee.

C

Superintendent F. H. Beede, of New Haven, reports in regard to the law of Connecticut:

"I would say that the law relative to the testing of the eyesight of school children in this state is very simple. The state law requires that the eyesight of pupils in all schools of the state shall be examined triennially according to the instructions furnished by the state board of education. These instructions are not elaborate. The regular card used for testing the eyesight by physicians is used for this purpose in the schools. Teachers are required by law to notify in writing the parent or guardian of every pupil whose eyes are found to be defective or diseased. The teacher must also make a written report of such cases to the state board of education.

"There is no law in this state requiring the testing of the hearing of school children."

D

Dr. James B. Fitzgerald, director of physical training in the Boston public schools, reports through Superintendent Edwin P. Seaver:

"There is no regular examination of the eyes and ears in the Boston schools. This course was decided upon after consulting some of the most eminent specialists in the city. No examination is made until the child shows some definite symptoms. When this happens, the teachers report the cases to the parents in a formal way and urge that examination be made by a specialist. Usually this is done; but when it is not done, the responsibility is with the parents, where in our opinion it belongs.

"Our teachers are taught the common symptoms of defective sight and hearing, and in my opinion the system works well.

"We *do*, however, have the eyes and ears of backward children examined occasionally by specialists."

Dr. Elias G. Brown, of the board of education, New York city, reports:

"The plan for examining all defectives in the New York city public schools is as follows:

"Children who have difficulty in keeping up with their classes, for any reason, are reported to headquarters (board of education). Being in charge of work for defectives, I visit the different schools and examine all children reported. As yet no attempt is made to examine children who keep up with their classes.

"My examination is into the mental as well as the physical condition of the children, to see, if possible, what it is that holds them back. In many cases it is pure mental deficiency. In other cases it is defective sight or hearing. The test I make for sight and hearing is simple and practical—simply to determine whether sight or hearing is defective enough to prevent usual progress in the school grades.

"The examination is made as follows:

"The child is required to stand across the room and, one eye covered, tested as to ability to tell how many fingers I hold up. Astigamatism is not tested for, unless headaches or some other symptom is complained of by the pupil, or unless the teacher gives a report indicating to me the probability of astigmatism.

"Special classes or special treatment is advised where indicated.

"Children who may have slightly defective eyesight or hearing, but who keep up in grade, are not examined. This step has not yet been reached."

E

WORCESTER PUBLIC SCHOOLS

EYE AND EAR EXAMINATIONS

(From instructions for examinations)

Do not expose the card except when in use, as familiarity with its face leads children to learn the letters "by heart."

First-grade and kindergarten children need not be examined.

The examination should be made privately and singly, in a room or hall well lighted, and as quiet as possible, apart from the general school session. Eyes and ears should be tested at the same sitting.

Ascertain if the pupil habitually suffers from inflamed lids or eyes.

Children already wearing glasses should be tested with such glasses properly adjusted on the face.

Place a card of Snellen's test types on the wall in a good light; do not allow the face of the card to be covered by glass.

The line marked XX (20) should be seen at twenty feet; therefore place the pupil twenty feet from the card.

Each eye should be examined separately.

Hold a card over one eye while the other is being examined. Do not press upon the covered eye, as the pressure might induce an incorrect examination.

Have the pupil begin at the top of the test card, and read aloud down as far as he can, first with one eye and then with the other.

If the pupil does not habitually suffer with inflamed lids or eyes, and can read a *majority* of the XX (20) test type with *each* eye, and does not, upon inquiry, complain of *habitually* tired and painful eyes or headaches after study, his eyes may be considered satisfactory; but if he habitually suffers from inflamed lids or eyes, or cannot read a *majority* of the XX (20) test type with *both* eyes, or *habitually* complains of tired and painful eyes or headache after study, a card of information should be sent to parent or guardian.

To examine for defective hearing, test each ear separately. Have pupil stand twenty feet distant, facing squarely to right or left, not allowing eyes to turn toward examiner. Have pupil gently press a soft handkerchief to the ear turned away from examiner, and then whisper, slowly and distinctly, or pronouce in an ordinary conversational voice, words or numbers, requiring the pupil to repeat them as soon as heard. If the words are not heard at twenty feet, approach pupil until they are heard, and note the distance, and record in the blanks furnished for the purpose. If found defective, a card of information should be sent to parent or guardian.

The committee believes that to secure uniformity, Snellen's test types should be used as a part of the test of sight, and the ordinary voice, as used in the tests in the city of Worcester, should be employed in the examination for defective hearing.

The committee believes that these statistics should be collected at regular intervals; that it is not likely it will be done by the Bureau of Education; that

	Number of Cities	By Whom Conducted		Defective Children		Test Used	Test for Kindergarten
		Principal or Teacher	Specialist	Referred to Specialist	Sent to Specialist		
Sight							
Informal tests ...	9	9	0	2	1	Observation: reading print at various distances.	
Formal tests.....	28	25	3	17	7	For "nearsightednes" twenty-four use Snellen's test types; for "farsightedness" teachers depend upon observation. Three report tests for color-blindness.	Four use "*E*" or illiterate test. One uses pictures of familiar objects; three depend on observation and testing by simple geometrical figures, O, Δ, etc.; one uses intersecting line test.
Hearing							
Informal tests....	12	12	0	1	2		
Formal tests	20	17	3	7	5	Test used: Fourteen cities use the watch test; six use the voice; other supplementary tests are by means of a "clicker," tuning-fork, and audiometer. On the question. "Is the watch test satisfactory and sufficient?" Ten reported "No," four reported "Yes."	

The figures all refer to number of cities. Total number replying, fifty-five.

the National Educational Association might do it thru a permanent committee; but it points out that there is no provision of funds to carry out such a work.

Finally, the committee urges that the *causes* of defective sight and hearing should be investigated, with a view to educating children, parents, and teachers on the subject, and thus preventing, as far as possible, such defects among our school children.

Reported causes of defects of sight.—Astigmatism,[1] hypermetropia,[1] myopia,[1] acute inflammation,[1] bad furniture, bad posture at desk, congenital causes, constant use of eyes, defective light at home, holding books too near eyes, lack of outdoor exercise, poor food, poor print, poor ventilation of schoolrooms, neglect of parents and teachers.

Reported causes of defects of hearing.—Adenoid growths, catarrh, congenital causes, falls, measles, neglect of parents, scarlet fever.

F. W. Booth, *Chairman;*
O. H. Burritt;
F. Parke Lewis;
Clarence J. Blake;
Percival Hall;
Committee.

THE CHICAGO HOSPITAL SCHOOL FOR NERVOUS AND DELICATE CHILDREN—ITS EDUCATIONAL AND SCIENTIFIC METHODS

MARY R. CAMPBELL, DEAN OF THE CHICAGO HOSPITAL SCHOOL FOR NERVOUS AND DELICATE CHILDREN, AND EDUCATIONAL ADVISOR FOR THE CHICAGO SCHOOL OF SPECIAL EDUCATION

In this era of greatest scientific educational triumphs in the care of all defectives, the blind are trained to have seeing fingers, the deaf to have hearing eyes. After such educational triumphs in the training of one sense to function for another, and the re-educating of the insane to mental balance, dare we not hope much for those whose senses are unimpaired, but whose minds are mentally blind or crippled?

It is not, therefore, of the deaf, nor of the blind, nor yet of the feeble-minded, that I would speak; but it is of those children so slightly subnormal that they cannot be properly provided for educationally with any of these three classes just mentioned, nor can they be educated, as our educational system stands today, with the children in the public schools. I refer to those children who thru accident or illness have been left with imperfect mental and physical functions. They are the hearing mutes; the children of retarded speech; the children who, as the result of illness, must be redeveloped and re-educated; the children who, because of injury at birth perhaps, have

[1] These are, of course, the defects themselves, but were reported as causes.

orthopedic conditions sometimes coexistent with unintelligible speech; and the children who, on account of malnutrition, are temporarily subnormal. These are the children who, with minds working almost normally, have not even a fighting chance. To the wealthy few the special education necessary to bring them out of this subnormal condition is now possible. To the thousands of poor the two or three years of special education and care requisite to develop even the normal attitude in these children is practically out of the question.

Chiefly from this class of children slightly subnormal, because of malnutrition in particular, come the children of wayward tendencies—the recruits to swell the ranks of the juvenile criminals.

How are the needs of such children to be met? Such children require not merely the care of medical specialists, but expert nursing and scientific educational care.

To provide special education for slightly subnormal and invalid children; to provide the laboratory facilities for the scientific investigation of the phenomena as evidenced by such children; and to provide the special training for teachers and nurses who wished to fit themselves for work with such children, were the three primary aims in organizing the Chicago Hospital School for Nervous and Delicate Children.

That the first purpose has been accomplished is evidenced by the fact that 60 per cent. of the children who have received educational and medical care in the school are now working with normal children. The success of the first aim was obtained thru the second—the scientific investigations, some of which have already been published, and others of which are to appear during the coming year. The third aim has been realized, with the exception that the demand for teachers has by far exceeded the supply.

How hearing mutes have been taught to talk; how the erratic and nervous child, but temporarily subnormal, has been brought into such poise and balance that he can work with normal children, is too long a story to tell at this time. To present in full the methods that have brought some of these children out of a condition of twilight and beclouded minds into rational beings would necessitate a thoro presentation, covering all the daily observations of teachers and nurses during a period of two to three years—the time required in producing the permanent results. To give an idea of the kind of children and of the methods employed in accomplishing these satisfactory results with them is the object of this presentation.

Every child in itself was a problem, and a very complex one at that, with its many coexistent disorders. How to overcome a child's anæmic condition, how to overcome special defects and orthopedic conditions, and how to give the child as much educational work as he was able to do, were taxing problems, not the least of which was how not to sacrifice the individuality of the child by all the necessary therapeutical measures and technical laboratory work. How to preserve the personality of the child was the greatest problem.

Necessarily the peculiar needs of the individual children shaped our laboratory methods. The child who was subnormal mentally and physically had to have outlined for him a method of educational procedure different from that of the child who was supranormal mentally, but subnormal physically. The child who was abnormal in sensory defects, but whose central condition was apparently normal, could not be approached in the same way as the child whose defect was central.

Fully 75 per cent. of the children admitted since the organization of the school in 1899 were suffering from malnutrition and anæmia, in addition to other pathological conditions. The typical cases—such as speech-defect due to injury at birth; general orthopedic conditions due to instrumental birth; functional neuroses; psychic epilepsy; paralytic cases due to infantile meningial troubles; juvenile insanity; defective speech due to infantile illnesses; stammering, stuttering; partial deafness; cases of disproportionate mental development—were some of the infirmities of the children brought to us for treatment; the most difficult cases being those in whom, coexistent with speech-defect, were other orthopedic conditions and marked motor inco-ordinations. Many of such children had minds very nearly normal, or whose mentation was even supranormal.

None of the problems presented by the peculiar infirmities of such children could be adequately met by an exclusively analytical method—a method too often employed in the study of children. The analytical had to be supplemented by the observational, and this, in turn, by the experimental, and in some cases by chemical analyses of foods and excretions. It was by combining these methods that the problems worked out at the school yielded such fruitful results. The daily life of the child was recorded in minute detail.

Every child was constantly under skilled observation from the time of his awaking in the morning until his retiring at night. There were three trained nurses for the ten children under observation, and fourteen teachers, including the special teachers, the tutors, and supplementary teachers.

The empirical data gathered by the nurses covered such points as the following, which I present in the same sequence as recorded in the nurses' daybook:

1. A report on how the child slept and rested during the night.
2. The time of his awaking in the morning.
3. The child's emotional tone on awaking.
4. The child's temperature, pulse, and respiration on awaking.
   (The object of taking this record before the child arose was to determine his normal pulse before physical exertion).
5. The kind of bath given the child—whether salt, cold or tepid, or a shower bath.
6. The time of dressing and length of time consumed in dressing.
7. The child's attitude toward others.
8. The quantity of water taken during the morning.
9. The kind and quantity of food taken for breakfast.
10. The exact time of the performance of physical functions, with a record of the kind and quantity of eliminations.

11. The pulse record taken immediately *before* a period of special mental effort.
12. The pulse record taken immediately *after* a period of special mental effort.
(This was to show the effect of fatigue on the pulse as induced by particular work.)
13. The general social conduct of the child during his free play period.
(The children were very carefully observed during their play time, for the child is most truly himself when he plays.)
14. The pulse record at midday, to show the effect on it of the morning's physical and mental fatigue.
15. The kind and quantity of food taken at luncheon.
16. The pulse record immediately after eating.
17. A report on the afternoon nap—duration, the effect on mental efforts for the afternoon.
(The records of a number of children showed that better work was done from four to six in the afternoon than at any other time during the day. It seemed as tho they were reinforced both physically and mentally.
18. The pulse record of the child immediately after his afternoon nap.
19. The kind and quantity of food eaten at dinner.
20. The time during the day when the greatest hunger was manifested.
(Inasmuch as hunger is one of the strongest and most imperative of the child's feelings, it seemed one of the most important points to record was when this feeling most strongly evidenced itself.)
21. The mental condition and social attitude of the child during the children's social hour.
22. The temperature, pulse, and respiration of the child at bedtime.
23. The kind of evening bath—whether hot or tepid.
24. The kind of massage—whether dry rub or oil massage.
25. The exact time of going to sleep.
(A very careful note on the last point, to show accurately the number of hours' sleep per day the child had.)

The data gathered by the teachers were both empirical and experimental. They covered the following points:

1. A note was made as to the kind of day, whether sunny, cloudy, rainy, snowy, warm, hot, chilly, or cold; and the apparent effect on the child.
2. The physical and mental condition of the child on entrance into the class was carefully noted.
3. The pulse at the beginning and at the end of mental activity was taken to show the effect of the particular lesson.
(From this group of special data we were enabled to arrange the children's programs of work so that the lessons producing the greatest fatigue would not come too close together, and so that the hardest lessons would come at the time of the child's period of maximum energy.)
4. The child's emotional tone was very carefully noted, and its relation to the child's physical and mental attitude.
5. The child's dominant interest.
(This was sometimes taken as a central subject, and about it was grouped his other work.)
6. A report of the lesson—its aims, methods, and results.

Other observations of both teachers and nurses showed a record of—

a) Any unusual manifestations.
b) Anything that might deflect or modify a child's emotional tone—such as parents' visit, peculiar influence of teacher, etc.
c) Anything that might affect the natural unit of the child's life.
d) Anything normally naughty.
e) The effect of weather on the mental condition of a child for a given day or for a number of given days.

In addition, the weight and height of the children were taken every twenty-eight days. Blood counts with the anæmic children were made every seven days, and a monthly digest report of the condition of certain children was sent the consulting physicians.

Seemingly unimportant phases, such as the relation of preferred foods and better digestion, and the relation of pulse deviation to emotional tone, threw great light on the emotional tone of the child as affecting his general physical and mental activity. The fact that a teacher could, by referring to the nurses' record for the day, find out the exact number of hours of sleep the child had, explained to her many times the cause of Johnnie Jones' irritability, and why he seemed to have got out of bed on the wrong side, and could not concentrate his attention. The children were studied as carefully during their sleeping as during their waking hours.

During sleep it is generally admitted that the pulse is slower and more regular, and yet many times I have observed that the pulse of some of our most nervous children during their sleep indicated almost the same rate of beat as during the daytime, thus showing that mentation of some sort was going on. I made a particular study of some very nervous children who dreamed a great deal, and in one case the pulse beat was higher at this time than during the mental activity of the day. Nervous children, as a rule, dream a great deal, and thus is much of their nervous force consumed, incapacitating them for mental effort during school hours.

A very careful study was made of the emotional tone as affecting the pulse, and of the pulse as affecting the emotional tone. This emotional tone is an index of the current state of the nerve centers as a whole, and is therefore an index of the mental dynamics of the child.

From these charts you will see a connection established between the emotional tone of the child, his pulse beat, and his eliminations.

We found, after a study of some three years, that a markedly subnormal pulse coexisted with the subnormal mental activity of the child. A child with a pulse of 56 to 64 beats could not be expected to do the work of a child whose pulse was 80 to 90; neither could a child whose pulse was bounding from 80 to 110 and 115 do the careful, concentrative, even work of the child whose pulse was averaging 80 to 90 beats. Brain conditions were changed when, by close study of the pulse during any period of work, the pedagogical stimulus was changed. After a very careful study of the relation of the child's pulse to mental fatigue, we sometimes rearranged the child's entire program of work for the day, based entirely on the fluctuations and deviations of pulse beats. These pulse records of the teachers and nurses were made by tactile investigation rather than by the distracting mechanical registration of the sphygmograph.

Taking a child's respiration was another of the teachers' and nurses' methods of anticipating the nervous climax in the child. To calm an excited, nervous child by a few systematic deep-breathing exercises, to reduce the nervous condition, was another simple, but effective, mode of treatment.

When the child is first admitted into the school, he is given a thoro physical examination by one of the neurologists. The family and personal history of the child are taken. In investigating hereditary causes of the trouble, we

did not confine ourselves to the parental history only, but went back even to the great-grandfathers and the great-grandmothers, and to their collateral history. Curious as it may seem, with our particular children, grandmothers and grandfathers were less important factors in the causes of the condition of the child than the condition of malnutrition in the immediate life-history of the child.

After the neurologist had made the preliminary examination, a series of anthropometrical and psychophysical measurements were taken, to afford some basis for the pedagogical methods to be prescribed. This initial examination also included a microscopical analysis of the blood and the kidney eliminations. In the anæmic children blood counts were made every seven days.

While in the statement of methods I am presenting to you only cross-sections, as it were, of some of our researches, I wish it clearly understood that every child was taken in relation to its entire situation. That is to say, if we were studying the development of the mathematical concept in the child, we did not confine our records and observations only to the period of presenting that particular subject-matter, but these records showed, in addition, observations as to how and to what extent the child could apply the idea of measuring magnitude from one subject to another; for instance, from cooking to manual training, or from music to chemistry and physics. If the investigation was one on the restoration of the speech function, our observations were not confined to the child's work during the technical lesson, but covered all manifestations of the speech function, and other factors that might modify and develop the expressive side of his life. Nor did we, in our study of the correlation of the physical and mental states in children, confine our observations to one or two phases of coexistent phenomena. Obsessions and compelling impulses were analyzed by the data preceding and succeeding the overt act. It is unfair to judge a child by a momentary mood, for he has his emotional overtones and undertones; therefore, as it is the whole action that asserts the child's being, we studied the whole child, not the child in part.

I have indicated to you somewhat of our laboratory methods of gathering data on the child's physical and mental life. By these records we were able to establish approximately the individual norm of the child, and also his pathological norm. From our child-study notes we were conversant with his greatest and least deviations from these norms, and with the conditions producing these deviations. Our technical laboratory investigations may be briefly explained by the statement that during one investigation the children were weighed every twenty-eight days, blood examinations were made every seven days, the pulse was taken on an average eight times a day, the food was weighed and chemically analyzed before and after cooking, and the kidney and intestinal eliminations were submitted daily to chemical analysis—all this in addition to the educational work which was being carried on simultaneously.

I am not going into the technical explanations of our scientific method, for

these investigations are soon to be published. Suffice it to say that, as a result of these scientific investigations, we have reached a few conclusions which will be valuable in the care of both normal and abnormal children. We have learned—

1. That the majority of nervous children should have from twelve to fourteen glasses of water per day—two quarts at the very least.

2. That children from five to twelve years of age should average fourteen hours of sleep per day.

3. That children should have the heaviest meal of the day in the evening.

4. That young nervous children require hot baths at least once a day to help reduce the nervous condition.

5. That a close relation exists between pulse deviation and non-elimination.

6. That young nervous children, because of their excessive activity, require more carbohydrates, and should be fed five, six, and even seven times a day.

7. That the so-called abnormal craving of children for candies and sweets is nature's demand for sugars.

A few points were observed that may throw light upon certain forms of insanity. We do not state our conclusion on these points dogmatically, but inasmuch as no data or literature on the subject are to be found elsewhere, we bring forth these points in the hope that further investigation along this line may be made that may throw light on the nervous phenomena of children. Briefly summarizing:

1. By chemical analyses we found that stomach indigestion produced acerbity of disposition, oversensitiveness, fretfulness, and irritability.

2. These chemical analyses also showed that obstruction of the small intestine produced variability, erratic conduct, and similar manifestations.

3. By chemical analysis we found also that obstruction of the large intestine produced stupidity, languor, accompanied by heavy headaches, particularly over the eyes. Moodiness, moroseness, and melancholia were also mental accompaniments of this physical condition.

While we have spent much time in taking psycho-physical and anthropometrical measurements—which were taken, by the way, not to detect defects so much as to show us the rate of growth of a child, and his sequence of developing out of a subnormal into a normal condition—our greatest attention was paid to the physiology of the child's life, his mental as well as his physical physiology, the function side of the child's life being to us more important than the anatomy side. It was the living, growing being, the pulsating, human organism, that was of more importance than the mere anatomical skeleton of the child, which simply showed disproportion, deficiencies, and downward trend.

May I add here that we have found that, in general, stigmata revealed in physical and psycho-physical measurements are no criterion of moral perversions; that anthropometrical measurements do now show or prove the existence or non-existence of criminal tendencies? I may add further that my own conclusion on this point is substantiated by the elaborate investigation of Dr. D. P. MacMillan, of the Child Study Department of the Chicago

Public Schools, and by no less great authority than the New York police representatives of the Bertillon and finger-print system.

The tenative data, however, afforded by the psycho-physical measurements show that the subnormal condition is quantitative, not qualitative; that subnormality is simply a question of degree. In outlining our educational work, we corroborated these measurements by the pedagogical results obtained, and we found that our children could do the same educational work, but in a less perfect way. In all the educational work of the school we have given these subnormal children exactly the same kind of work as was given in the Dewey School and the University of Chicago School of Education. Some of our children, however, could only approximate the work.

With all this scientific investigation and the necessarily great amount of technical work for overcoming the neural defects of the little patients, the motive side of the child was given pre-eminence. Children think in situations, and in our educational work we aimed to keep paramount the meaning side, the desire side, the feeling side, the social side—the controlling elements of the emotional tones of children.

Notwithstanding that one of the main purposes of the school is the scientific research into the physical defects of children—defects that go toward producing general backwardness and mental infirmities—the most beautiful aspect of the school is from the child's standpoint; for everything that is done has a direct bearing, not only upon the needs, but on the desires and wishes, of the children. It is to the child an ideal world. Every child has his particular talents developed. If he shows a marked talent for music, the efforts of the teacher are concentrated along that line. Great attention has been paid to the effect of music both in the way of mental development and in controlling the emotional tone. Some of the children only six years old have been taught to compose, to read, and to write music, as well as to play. Lessons on the piano, violin, and other instruments were given. If manual work seems to be his particular bent, special attention is paid to a child in that line. If simple problems in physics and chemistry interest him, his scientific tastes are satisfied and directed, and the toy steam engine, so dear to the heart of the small boy, is explained by simple problems in physics, and thus his concept enriched. What a child loves to do, he is encouraged to do, unless his desire partakes too much of the nature of an obsession, in which case his attention is diverted by a counter-attraction. The child's natural sequence in the way of personal interests is followed. When a little invalid enters the school, there is no break between his home life and this new environment. A very careful study is made of the child's likes and dislikes, his preferences and tastes, and there is no new arrest in the child's development by the teacher forcing her arbitrary sequence upon the child's own natural mental sequence. To understand the needs of such a subnormal child, it has been most aptly said by a well-known educator that the teacher must get inside that child and look out upon the world thru his eyes.

Music.—In addition to the purely motive side of the work in music, the work is interesting because of the double purpose for which it is given. The speech center and the leg, arm, and finger centers of the brain are adjacent. To assist in developing speech, finger exercises on the piano—finger gymnastics—are given to assist in developing the right co-ordinations and to develop the motor area in the brain. Often a child's first knowledge of number and mathematical concept he gets thru the work in music. In fact, every educational phase of the school is correlated with music.

Speech.—For developing retarded speech or for developing speech in hearing mutes, or to restore the speech function in young children who thru illness have lost the power of speech, the normal co-ordinations of ear and voice are first set up before the eye and ear co-ordinations, or the eye and voice co-ordinations. The success of this method of developing speech lies in the fact that the children learn their vowelization by the sensation of voice-placing and tone-placing. They are given much technique to free them from technique. Notwithstanding that in the majority of speech cases many technical lessons are necessary both in speech and music, the thought side is given much prominence.

Gymnastics.—In the orthopedic gymnastics, which are almost entirely therapeutical in nature, little can be done along this line, but with the introduction of music the exercises become purposeful, and when it is explained to the child that certain treatments will help him to regain the use of his little crippled legs or arms, these exercises become full of interest and meaning to him. And even in these treatments the "why" side of his nature is being satisfied, altho it be by these sometimes painful manipulations upon his own poor little twisted body.

Sometimes it is not the little legs that are twisted. It may be that, because of spinal meningitis, the child has a twisted and twilight mind; for here, in this child's sanitarium with educational provision, children with crooked little backs, crooked little legs, and crooked little minds are admitted, to find benefit and relief thru these special methods.

One of the most interesting phases of the work is the way some of these little cripples take their work in dancing. Unable to stand on their legs, they are placed on their backs on a mattress on the floor, and the gymnastic teacher puts the legs thru the rhythmic dancing movements in time to music. This is done so that, altho the little patient himself cannot execute the required movements, these exercises will assist to develop the motor area in the brain so that the child will eventually gain motor control over his legs, and it will not take him so long to relearn to walk.

While special attention is given to overcoming speech defects and other neural defects, the majority of children are receiving instruction in cooking, simple physiology, elementary physics and chemistry, reading, writing, music, voice-training, and all kinds of gymnastics. Some of the best work is done in sloyd. Those children who are unable to stand sit while at the bench. All sorts of things are made—boxes, paper knives, doll-houses; anything that

the childish mind conceives is fashioned out in wood. In this work technique is subordinated to motive.

As the special methods evolved and developed from our more purely pedagogical experimentations are soon to be published, I have not gone into detail here. Suffice it to say at this time that the generalizations from the conclusions reached are as follows:

1. That music as a factor in the educational development of all young children, both normal and abnormal, should be given greater emphasis.

2. That technical drill on speech—the physiological alphabet—should be given young children, in order to free them from technique.

3. That young children, both normal and abnormal, should be given more dancing. Dancing movements are a prerequisite in developing other motor co-ordination—speech in particular.

Also as a result of these conclusions, the following questions have been raised, calling for further investigations:

1. To what extent is the general nervous condition of children at the age of nine to eleven due to an insufficient quantity of water and of sugars, rather than to that particular period of growth, as is generally conceded?

2. Are not insufficient sleep, and unwise distribution and insufficient number of meals, influential, tho ignored, factors in causing the physical and nervous breakdown of children at that age?

The sanitarium was organized in the fall of 1899. With the opening came more applications than the building could possibly hold. Twelve children were admitted on probation, and from that time to the end of the present school year in May, a period of less than five years, over four hundred children have been examined and tested. Of this number about fifty have been admitted for treatment. With the limited accommodation of house capacity, and the assisting staff, but few children could be cared for. However, the results obtained by the laboratory method, which we were thus better able to work out in minute detail, have made it possible for us to formulate such generalizations from our data obtained as may be applied to the care of both normal and abnormal children. In our investigations we have not sought to be able to establish glittering generalizations, but we have worked for a few fruitful results upon which pedagogical procedure may be based. We lay no claim to originality of method. We have simply brought together in one method of investigation the empirical, the analytical, the experimental, and, merely for corroboration, the statistical method.

The new era in child study is marked by laboratory methods. We are leaving behind us the methods of statistical evidence; the new child study, as does the study of medicine at the present day, demands laboratory methods and experimental evidence.

While we might have obtained much from tradition and hearsay knowledge in the handling of such children, we wanted a first-hand knowledge, and, for this reason, in our child study laboratory we have spent a great deal of time upon recording in minute detail the daily life-history of the child.

We need more laboratory schools for the scientific investigation of subnormal children. An ounce of prevention is worth a pound of cure, and who knows but what many of the four hundred children we have examined would not have needed special care had their mothers been properly instructed?

Would not a national child-study laboratory, under the auspices of the Department of Special Education of the National Educational Association, be one means of extending the ideals and aims of this section, and also of promulgating the cause of all abnormal children?

DEPARTMENT OF INDIAN EDUCATION

SECRETARY'S MINUTES

The opening meeting of the Department of Indian Education was called to order in the Hall of Congresses, Administration Building, at 9:30 A. M., by the president, R. A. Cochran, superintendent of the Rice Station Indian School, Arizona.

The Oklahoma Indian school band furnished the music.

The opening prayer was offered by Most Rev. John J. Glennon, archbishop of St. Louis, after which was sung a song entitled "This is the Indian's Home," written by Mr. A. O. Wright, supervisor of Indian schools.

Addresses of welcome were delivered by Hon. A. M. Dockery, governor of Missouri; Hon. D. R. Francis, president of the Louisiana Purchase Exposition; Dr. Howard J. Rogers, chief of the Department of Education and director of congresses, Louisiana Purchase Exposition; Dr. Calvin M. Woodward, director of Manual Training School, Washington University, St. Louis, Mo.; Dr. F. Louis Soldan, superintendent of instruction, St. Louis, Mo.; Miss Amelia C. Fruchte, of the City Normal and High School, St. Louis, Mo.; and Most Rev. John J. Glennon, archbishop of St. Louis.

Addresses in response, and touching upon matters of interest to Indian teachers and workers, were made by Dr. W J McGee, chief of the Department of Anthropology, Louisiana Purchase Exposition; Dr. John T. Doyle, secretary of the United States Civil Service Commission, Washington, D. C.; Hon. Levi Chubbuck, special inspector, Department of the Interior, Washington, D. C.; Superintendent S. M. McCowan, Chilocco Indian Agricultural School, Chilocco, Okla.; Superintendent R. A. Cochran, Rice Station Indian School, Talklai, Ariz.; and Superintendent of Indian Schools, Miss Estelle Reel, Washington, D. C.

MONDAY, JUNE 27, 7:30 P. M.

An entertainment was given in Festival Hall by the Indian students, under the direction of S. M. McCowan, superintendent of the Chilocco Agricultural School, Chilocco, Okla.

TUESDAY, JUNE 28, 2:30 P. M.

The department was called to order in the Indian Building by Superintendent R. A. Cochran, president of the department.

Dr. John T. Doyle, secretary of the United States Civil Service Commission, Washington, D. C., delivered an address on "Efficiency in the Indian Service."

Miss Natalie Curtis, New York city, delivered an address on "Indian Music and Indian Education."

TUESDAY, JUNE 28, 8 P. M.

A reception was given to Indian teachers and workers in the Indian Building.

WEDNESDAY, JUNE 29, 2:30 P. M.

The department met in Agricultural Hall in joint session with the Department of Manual Training.

For the program of this session see Minutes of the Department of Manual Training.

THURSDAY, JUNE 30, 2:30 P.M.

The department met in the Hall of Congresses in joint session with the Department of Elementary Education.

For the program of this session see Minutes of the Elementary Department.

FRIDAY, JULY 1, 2:30 P.M.

The department was called to order in the Indian Building by President R. A. Cochran.

A Round Table Conference of Indian Workers was held, led by Mr. A. O. Wright, supervisor of Indian schools. The subject for discussion was: "Review of Educational Points Acquired from the Study of the Various Exhibits and Model Schools, and from the Joint Sessions with the Manual Training and Elementary Departments of the National Educational Association." A general discussion followed of the best methods to adopt in applying the knowledge gained to Indian school work.

The following resolutions were adopted:

Resolved, That we heartily commend the president's attitude in connection with matters relating to Indian affairs.

Resolved, That we thank the secretary of the interior for the unfailing support given to all efforts looking to the advancement of the Indian and improving his condition; that we are in hearty sympathy with the practical, businesslike administration of the commissioner of Indian affairs, and commend his broad-minded and disinterested course in the conduct of the Indian school service. We also commend the superintendent of Indian schools for her untiring zeal and energy in the cause of Indian education, and especially for the practical reforms introduced in school work. Our thanks are tendered to Mr. R. A. Cochran, the president of the department, for the able and impartial manner in which he has presided over our meetings.

Resolved, That we tender our heartfelt thanks to Superintendent S. M. McCowan for the manner in which he has entertained our teachers, and extend to him our warm congratulations upon the great success he has made of the model Indian school and exhibit.

Resolved, That we are especially gratified at the substantial progress made by the schools during the year and the general betterment of conditions affecting the Indian.

Resolved, That we commend the efforts of the Civil Service Commission to better the industrial service of the schools.

Resolved, That we gratefully tender our acknowledgment of courtesies extended and hospitality shown by the people of St. Louis, and offer our hearty thanks to the archbishop and other clergy, to the officials of the state and city, and to the members of the Universal Exposition management for their kind words of welcome, and for their assistance in making our meeting a success. We also sincerely thank the local press for its reports of our proceedings and helpful notices.

The department then adjourned.

ESTELLE REEL, *Secretary*.

ADDRESSES OF WELCOME

HON. A. M. DOCKERY, GOVERNOR OF MISSOURI

Long ago in our copy-books we learned that "education is the chief defense of nations." The experience of later years has proved the truth of that assertion. Looking back, we can see how, as villages grew to towns and towns to cities, a broader and higher education was demanded, which uplifted the community and made possible its expansion. Knowledge of our needs is the foundation for providing means to meet them. Thus it is that the splendid public-school system of this country has grown and developed. Here, as nowhere else, the child of poverty is the equal of the more fortunately endowed child of wealth, and the strength of mental attainments is the one

measure of ability to receive the education which fits him to aspire to the highest position. Without it the poorer classes of the United States would be as indifferently informed as are the peasants of foreign lands. No lad in this country need be without the rudiments of a good education, and what he attains after that is only limited by his perseverance in mastering the college curriculum which covers the whole field of learning.

As instructors of Indians, yours is a most important vocation. The missionary who carried the gospel paved the way for your coming. With the acquirement of knowledge thus brought, the first settlers of this continent began to realize, by comparison, the difference between them and their Caucasian brothers. True it is that not all of them were ready to accept the protection of our government, but once accepted they have generally come to know the significance of the change that has been wrought, until now many of the descendants of the aborigines are among our most honored citizens.

A grateful nation, therefore, looks on and applauds your efforts still further to augment the usefulness of the "Red Man of the Forest." Not only are the elements of an English education afforded him, but he is trained in the arts and sciences and in manual labor, and is given the opportunity to become as learned and as skilled as any students or artisans. Slowly but surely the Indian as we know him in history is disappearing, and in his stead we find the educated, strong, and worthy citizen. Yours has been the task which effected this transformation. With the aid of the national government, whose aim has ever been to afford equal facilities to all, churches and schools have been established, presided over by those best fitted to minister to these people. Their needs are studied by the brightest minds of the country, and, as our nation develops, the Indian secures his share of the prosperity which attends it.

Missouri takes pride in every effort which seeks to advance the youth of our land. In the promotion of higher education for the masses we see the strength of future generations. The greatness of your work is among the best examples of the good accomplished.

I congratulate you upon the splendid showing you have made in several exhibit palaces. Here on these grounds are ample evidences of progress. Over in the Indian congress, and in some of the attractions of the Pike, many an old chief takes pride in exhibiting the Indian of the plain and forest. In these buildings, however, the descendants of these same tribes are as jealous of the culture attained by your efforts as were the denizens of the woods of their prowess with bow and arrow or the repeating rifle. Both have reason to be proud. The original inhabitants of these great American lands were lords of all. Having yielded to our government, the older ones still glory in the traditions of their forefathers, and their fealty is to be commended. The tribal youth, too, are proud of their ancestry, but have been taught in the schools until they now see the advantages of the highest civilization and are quick to respond to it.

Let the good work continue. It cannot be too thoro. The educated masses of an otherwise savage people rise up to bless you. As the exponents of a nation's will, you lead them on in paths made bright and lives made useful by an awakened intelligence. The people of this country owe you a debt of gratitude for your sacrifices that these wards of the government may be trained into the best of citizens. It is my pleasure, therefore, to welcome you to our state and to this, its chief city.

Our people are your friends and the friends of those over whom you exercise supervisory care. Each broadened life is a monument to the glory and power of our government which employs your hands to achieve its own grand purpose.

HON. DAVID R. FRANCIS, PRESIDENT, LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

I shall not only be amiss if I fail to extend to the Congress of Indian Educators a greeting, but I shall not be true to my own feelings. I have had some official connection—for a short time only, it is true—with the Indian education of the United States. As secretary of the interior, 1896–97, it was my pleasant duty to have something to do with the Bureau of Indian Affairs. It gave me an insight into the management of that bureau which I should never have had if I had not been connected with it.

I desire at this time to pay tribute to the devotion of the educators of the Indian. I well remember how I was impressed with the interest which those educators manifested in their duties, and with the fact that they were not working solely for the compensation given them by the government. And it seems to me that field is not confined alone to the Indian education. People who live immediately adjoining the Indian—the pioneers, as it were—do not have the same consideration. They do not cherish the same feelings toward the Indian which those do who live in the East. My experience and observation, and information from every source, are to the effect that when a right-feeling, proper-thinking American man or woman is placed in this position of responsibility—and it is a position of great responsibility to be called upon to teach an untutored race—there is evinced, beyond the compensation received, a deep-rooted interest in the welfare and in the elevation of the Indian which is well-becoming to our Anglo-Saxon nation. I am, therefore, very glad on behalf of the Exposition Company to extend to you greetings this morning.

Speaking for the exposition management, and not dwelling at length, if at all, upon the scope and merits of the exposition, I wish to say a word in regard to its educational advantages in studying the exhibits of the products of all civilized countries, and attending the congresses which are to be held in connection with the exposition, which are sufficient, in my mind, to make it a landmark in the great progress of human thought. The man or the woman, whoever he or she may be, who fails to take advantage of the opportunities

here presented within the small area of two square miles, will not be true to his duties to himself and will never cease to regret it. I believe that this exposition is in itself a great educator, and it is highly proper that we should welcome the assemblage of educators. We have endeavored, and shall continue to endeavor, to make this exposition a university, as it were, in itself. In the classification of the exhibits, in the organization of the company and of the exposition itself, we have made the first department a department of education. All of the other departments have been organized with a view of establishing their relations to each other and with this first department of education, and upon that basis of education all these structures have been built. We of a country which governs itself realize the value of education to all, and we have made every effort from the inception of this enterprise to promote the education of the people of the United States; and if I were called upon to say what are the main objects of this exposition, I should dare to say the promotion of the education of the people of the country and the promotion of the spirit of education.

The management, therefore, extends a greeting to the Indian educators, and trusts your stay among us will prove a pleasant and profitable one, and that it may be prolonged to the fullest extent possible. On behalf of the management, I therefore greet you.

HOWARD J. ROGERS, CHIEF OF THE DEPARTMENT OF EDUCATION AND DIRECTOR OF CONGRESSES, LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

On behalf of the Department of Congresses, I take great pleasure in welcoming you to the exposition. This is the first gun, in the series of great educational conferences to be held within the grounds in the next eight days, and as usual your energetic superintendent, Miss Reel, is on hand to fire that gun.

It is especially appropriate that on the banks of the great river which bears an Indian name, flowing thru scenes which are filled with historic interest to the descendants of both races, and whose waters for so many years marked the boundary between the advancing customs, manners, and civilization of the invading races, and the customs, tribal laws, and manners of the original holders of the soil, there should be installed at this great exposition of peace the first working exhibit of Indian schools and Indian instruction.

I have watched with great interest the growth of the Department of Indian Education in the National Educational Association for the past six years. Altho young in the history of the National Educational Association, it commands the respect and admiration, not only as indicative of the great amount of work done in the reservation schools, but for the scientific value of the work and discussions carried on in the department. It is particularly fitting that in this great exposition of processes there should be maintained a working exhibit of the Indian schools which shall demonstrate the methods and processes in use for the training of Indian children in those arts and crafts which

help them to become useful members of society. It cannot fail to be the utmost benefit in impressing the people of this country with a sense of the obligation which they owe the wards of the nation in generously providing every reasonable means for the necessary industrial training to make them self-supporting, self-respecting, and law-abiding citizens.

I congratulate the superintendent of the Indian schools, and the teachers and instructors of such schools, on the very intelligent and masterful way in which you have presented the work of your department, and extend to you the greeting and thanks of the exposition, not only for your presence here today, but also for the interesting addition to our educational exhibits.

DR. CALVIN M. WOODWARD, DIRECTOR OF MANUAL TRAINING SCHOOL, WASHINGTON UNIVERSITY, ST. LOUIS, MO.

I am designated on your program as the director of the Manual Training School of Washington University; therefore it is my great pleasure to welcome you this morning on behalf of this university to this room and to this building of Washington University, and to all these grand buildings belonging to Washington University.

Two years ago I met you in Detroit. I am delighted to meet you again, and to welcome you to this new life, and to the splendid opportunities offered here today and thru the coming week. I congratulate you upon the progress you have made in two years. I have watched the growth of the Indian education, and I have seen with satisfaction how you have been leading on successfully a race to a higher standard of civilization. It is a great and noble work, and I am well aware that many of you are devoting yourselves to that work in a sort of missionary spirit. I honor you for your devotion, enthusiasm, and patience, because I know this work requires infinite patience, as well as infinite devotion. If I had you by yourselves—just the teachers and no one else—I would talk to you a little about some of the things I think you can do, and some of the things I hope you will do in the future in your respective localities.

Believe me, most of the civilization of today stands upon what I might very properly call a technical foundation. And the civilization of the Indians is to be built upon a technical foundation. They must understand the laws of industrial progress. They must not bring in too much of tradition. While I ask no Indian to forget his father and mother, or to speak disrespectfully of his people, I do ask him to receive graciously and openly what the new civilization has to offer. When we reach out our hands to him to lift him up to a higher standard, we do not do it with any scorn or contempt of the past. I would have them build upon the past a noble future. You have been told of the triumphs of this generation. You can hardly realize how completely mechanical force and nature-force have taken the place of muscular men and women.

We sometimes hear people say: "There must be 'hewers of wood and

drawers of water;' there must always be some people with us to do the menial, disagreeable, and degrading work." This is gradually being shown to be not true. We want no people of any color or any nationality to grow up with the idea that they have got to do the menial work of this world. We want them to feel that all fields are now open. We hew no wood by human hand; all by powerful machinery. We want to give the Indian youth of this country the best we have to give. We have no slavery today except the slavery of ignorance and vice. We want no such slavery in this land. This university has its doors wide open to every youth who intends to be something in the future. Hereafter start him thoroly and well in the rudiments. Do not try to build the top story of your house until after the foundation is laid. Build the foundation well and the building will grow, just as a well planted tree will grow to its final and magnificent growth. Therefore I give you this word of encouragement. I shall watch your progress. This morning I simply welcome you to this room, which is a part of Washington University. And with this word of greeting I bid you good morning.

DR. F. LOUIS SOLDAN, SUPERINTENDENT OF INSTRUCTION, PUBLIC SCHOOLS, ST. LOUIS, MO.

The surroundings of the present hour form a fitting background for the words of welcome which the representatives of the city of St. Louis have been invited to extend to you. Within the sphere of Indian education, within the sphere of Indian interest, this is historic ground. The street car or the train that has brought you out to this place has run over streets where once were Indian mounds extending along the river front of St. Louis to the northern part of the city, which were leveled to make room for our growth. From the standpoint of the Indian, and the standpoint of his education, this is historic ground. A few feet from here the old river Des Peres runs. The name of the river reminds us of the efforts made one hundred and fifty years ago by the missionaries to educate the Indian—efforts continued to the present day. The mounds and direct evidences of Indian occupancy of this ground are missing, but you cannot mention river or hill in this part of the country that does not remind us of the Indian. A few miles from here runs the Mississippi river, as it did at the time of Indian occupancy. Its name, given to it by the first inhabitants of this place, is Indian, and tells us that before the white man came the Indian had owned that river and named it. A few miles north the Missouri tells the same story.

In welcoming you I feel like saying a few words in grateful recognition of what the education of the Indian race has done for the cause of education. It has emphasized the principle that a man's or a woman's education, in order to be a true education, must proceed along the line of his or her life-work. Indian education, the training of the young men and women of that

race, has pointed clearly to the importance of the manner of training and its importance in adjusting school education to the paths of life they follow.

The system of Indian education which the government and your efforts have built up invites thoughtful study. I cannot help feeling that what you have done is grand, from the standpoint of citizenship. It is of civic importance. When you teach that boy or that girl, spiritually and appreciatively, to pray "Our Father," you establish in that very phrase the grand civic idea of the brotherhood of all men and women. We all are aware of the great difficulties that beset your task. In other institutions the school takes care of but a fractional part of education; but in the education of our Indian boys and girls you do more than simply teach the elements of reading, writing, and arithmetic. Your school supplies the missing family education. You go beyond your pupils to the Indian home, where your help and influence produce amazing results.

If I am rightly informed, about one-seventh of the total Indian population is in the schools. In this great city, with all its facilities, not quite one-eighth of the total population are in the public schools. Over one-third of the Indians of this country have been taught to speak English, and do speak English today; over seven-eighths of them have discarded the dress and attire of the old times and walk in the garb of civilization; two-thirds, I am told, live in houses after the white man's fashion. These achievements are owing to educational work in which many of you have had a large share.

In welcoming you to this city, I thank you for what you have done. I wish to extend to you this welcome on behalf of the eighty thousand children of this city. They appreciate and feel what is being done for the Indian; they feel an interest in the labors of the teachers. I welcome you on behalf of our citizens who feel that a national pledge has been given to this race which you in your schools are nobly redeeming. Show me a patriotic citizen, and I will show you a friend of Indian education, and one who appreciates the teachers of the Indian race. I welcome you on behalf of the St. Louis Board of Education, and invite you to visit some of the schoolhouses that will keep their doors open for you. You are invited to see what the board of education in St. Louis is doing for the white children. The doors of the schoolhouses are open now; the hearts of our citizens have been open to you at all times.

MISS AMELIA C. FRUCHTE, NORMAL AND HIGH SCHOOL, ST. LOUIS, MO.

Many years ago, when I read Shakespeare's quotation, "I will put a girdle around the earth in forty minutes," it did not dawn upon me that some time in this Middle West we would find a man who would do better, and would put a girdle around the earth in thirty minutes. Mr. Francis has put around this exposition a railway which in thirty minutes will take you around the world, as it were. He has enlisted the help and co-operation of all the races of the

world. In this exposition we shall learn how to control the material resources of the world; we shall learn at this congress and others how to get hold of the principles that control our lives in general.

To me the most interesting of the exhibits is the Indian exhibit. I believe if Pestalozzi were here his heart would throb for joy. I spent a number of delightful hours in the Indian building. I studied there the habitat of the race; on the one side I saw at work the old Indians manufacturing their native wares, and on the other side the young Indians acquiring the art of controlling themselves and fitting themselves for the responsibilities of citizenship.

I believe it was a fortunate thing for the American people when President McKinley in his wisdom saw fit to select for us a Caucasian woman of ideality as superintendent of Indian schools. I believe that to Miss Reel we owe thanks for the progress of this race. She more than anyone else has urged the Indian's needs and gradually introduced industrial training in general. She has, I know, been exceedingly active for the Indian, both in educational work and in enabling him to find a profitable market for the fruits of his industry. I am told that one lady alone sold $18,000 worth of Indian products last year.

On behalf of the women teachers of St. Louis, I welcome Miss Reel and all her friends and co-workers to the exposition, where we all together shall learn what I presume we all conceive to be the great lesson of life.

MOST REV. JOHN J. GLENNON, ARCHBISHOP OF ST. LOUIS, MO.

There have been so many greetings pronounced and so many welcomes extended that I am afraid your convention will become altogether one of greetings, because by the time the greetings are exhausted, then will come the parting, instead of getting in the solid work. Perhaps, after all, this is better than to take things too seriously, and I believe that most of our conventions consist of a greeting and a parting. Perhaps this is the sum total of life. We meet and greet and part again—to meet again, I hope.

I am delighted to see you today. As a friend of Indian education I greet you, and because of the consecration that I am sure is in your work you deserve a double greeting. Speaking of consecration to your work, I believe that it would not be unfair for me to say also that I greet you as a representative of a church that has given many of its sons and daughters to the consecration and uplifting of the Indian race. I feel that I form here a kind of a bond between the past and the present—the past which is represented by those mission schools of the West. I can almost fancy today that I hear again the voice of some Gabriel or the monks of Santa Barbara summoning their little flocks together that they may teach them the truths of knowledge, and also those undying truths on which are based the consecration of the Missionary Board.

Some of these missionaries are still living, and I am glad to know that you and they are working together, for there is one bond of unity in your work.

In his endeavors to go onward and upward we can greet the Indian as a friend and as a brother under a common flag, in a common nationality, under the standard of the Blessed Savior, under the standard of the Almighty, the common Father of us all.

RESPONSES

DR. W J McGEE, CHIEF OF THE DEPARTMENT OF ANTHROPOLOGY, LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

It is a particular pleasure for me to accept, on behalf of the Congress of Indian Educators, and on behalf of the Department of Anthropology as well, the greetings which have been so kindly extended this morning. It is true, as the fathers thought, that he is a public benefactor who makes two blades of grass grow where one grew before; but it is equally true, as we, the children, are learning, that he is a greater benefactor who makes a spear of wheat grow where a blade of grass grew before. In other words, the great lesson of modern intellectual development is that it is not so much quantity as quality that counts in the development of the world and in the development of our time. And this is the lesson that has been taught in part by Indian education It is true that this great Exposition has a function which is not always realized but it is not to be forgotten that the excellence of the Exposition is in a large amount due to the fact that other educators have perceived this function, have contributed to it, and have joined in making it a success for those who spend but a day or a week within our gates. Every educator who comes profits greatly by the coming.

Much has been said this morning about the progress of Indian education. His excellency the governor said something about modern civilization and the power which it exercises. Suppose I try for a moment to formulate the law of intellectual development, contrasting it with the law of commercial interchange. In commercial interchange you may have money and I wheat. I sell my wheat to you; I have the money and you the wheat. The two of us have no more than we had before; the distribution is better, but the stock of money and wheat is not increased. Now, consider for a moment the law of intellectual interchange. You have knowledge and I have knowledge. You communicate yours to me, and there is no loss on your part; I communicate mine to you, and I lose nothing; indeed, I profit a little by the exercise of the giving. The consequence is that each individual of the pair possesses double the knowledge there was before. Neither is impoverished, but the two are doubly enriched. Collectively we have four times the intellectual strength which we

possessed jointly at the beginning of the transaction. This is the great law of intellectual interchange which lies at the very foundation of all education and of all the vast educational power which has been extolled this morning as the development of civilization.

Now a word with respect to the red race. Let it not be imagined for a single moment that in dealing with the red race we Caucasians are dealing with an inferior type of mankind. Let it be understood that this type of mankind, indigenous to the western hemisphere, is indeed noble; is in fact so noble and worthy that the law of intellectual interchange may benefit us who come in contact with them, just as they profit by contact with us. Think for a moment of some of the achievements and characteristics of our aboriginal landholders; of a race which formerly reigned over all of this territory now occupied by our seventy millions of people. Think of the lessons we have gained from it. Those of us whose heads are touched by the snow of time remember that admirable and notable example of the world's oratory, the speech of Logan, chief of the Mingo tribe. Never have I seen an Indian child disobedient to or disrespectful toward its parents or anyone else. In this particular we may well profit by the example of this people. Nor are we for a moment to imagine that the people for whose education, in conjunction with our own, we are constantly working, is devoid of accomplishment. If we select the first hundred or thousand of the makers of the nations, or the shapers of the progress of the times, in the republics south of the Rio Grande, we shall find that in the veins of 90 per cent. of them Indian blood flows. This is the kind of stock which makes up the race which you, teachers of Indian schools, are educating and raising to a higher plane; and we profit by association, just as they profit by the contact with us.

If time permitted, I should be glad to say something of the general course of human progress. I should like to point out the general tendency of human development—that tendency under which the races and the peoples of the earth are each decade becoming more and more alike; but time will not permit. Suffice it to say the tendency is a clear one.

One final word with respect to the aim of Indian education, as I conceive it. I am perfectly ready to profit constantly by the spirit of such leaders of education as the commissioner of Indian affairs; as the superintendent of Indian schools, Miss Reel; as Superintendent McCowan, who has charge of the Chilocco Indian School, and is also in charge of the Indian school here. I am always ready to profit by their experience and their devotion to Indian education, which, as I conceive it, embraces the making of better Indians and the improvement of the Indian as an Indian. It is true that the object—or one of the main objects—is to make citizens, just as it is the object of education among ourselves. But cannot we make students of the Indian without de-Indianizing him? I think we can—by endeavoring to make better Indians; to make the Indian more confident of supporting himself; to make him more competent to enter into those struggles for supremacy in which we are all

alike engaged, whether we profess it or not; and to take his part in those struggles for progress which represent the making of all human activity. I am of the opinion that every Indian should be a better Indian than was his father, just as I am of the opinion that every white man should be better than his father. So that seems to me to be the keynote of Indian education—to make each generation of Indians better than the one before; better citizens, better guardians of our common flag, better people. Of such should be the aim in Indian education.

DR. JOHN T. DOYLE, SECRETARY OF THE UNITED STATES CIVIL SERVICE COMMISSION, WASHINGTON, D. C.

It may seem rash to say that anything is bigger than this big exposition, but there are several things bigger. One thing bigger is the hearts of our good friends who have given us this welcome and tendered us the freedom of this Utopia. Another thing that is bigger is the genius of those who have fashioned this vast aggregation of material progress illustrating the triumph of man in studying the earth and human wants.

Civil-service examinations for appointment in the Indian service are made as practical as possible, but these in themselves are not sufficient to secure efficient employees. In addition, there is the probational test in the actual dealing with the Indian, in protecting his interests and guiding his development. This probation is the most important of the tests of fitness, as it is intended to test the possession of the requisite tact, character, and capacity in the actual performance of duty. If a teacher is lacking in force, industry, or enthusiasm, he should be dropped as failing in the most requisite qualifications. A Tammany leader criticised the civil-service examinations in saying: "I have seen many, oh, so many, young fellows, who were bubbling over with enthusiasm and patriotism, laying right down and losing all interest in their country after running up against a civil-service examination." A teacher, instead of lying right down and losing all interest in his profession, should work harder than ever to be a success. He has been appointed because of his standing in a competition of character and capacity, and given a tenure dependent upon his diligence and subordination. It should be to his interest to devote his abilities with sincerity and zeal to his task and make the Indian service a career.

HON. LEVI CHUBBUCK, SPECIAL INSPECTOR, DEPARTMENT OF THE INTERIOR, WASHINGTON, D. C.

Two years spent with those who are in the field as employees in the Indian service, many of whom have spent decades in the work, give me but little warrant to stand before the Congress of Indian Educators and respond to the kind greetings that have been extended to us; but the length of my serv-

ice does not, I trust, measure the extent of my interest in the cause of Indian education, nor the depth of my sympathy for the workers in the field.

Having had the privilege of visiting more than one hundred Indian schools—day, reservation, boarding, and non-reservation schools—located in a dozen different states and territories, and in which a thousand or more men and women are employed, I have added to my list of acquaintances such a number as must give to me, while life and memory last, an abiding personal interest in the Indian school service. One does not have to spend a lifetime visiting Indian schools to become conscious that as a class the Indian service employees meet the requirements set forth by one who has spent long years in the service, when he said to me, on assuming my present duties, that no one was fit to be in the work in any capacity unless he or she be imbued with the true missionary spirit. Certainly the conditions of isolation and deprivation under which, for the most part, the work must be carried on, are not attractive to those whose heart-throbs are in unison only with self-interest. And your presence here today attests the fact that you are interested in your work beyond the point of self, and are actuated by a desire not only to render efficient service to the government, but to do good to the people for whom the Indian service is maintained.

If it be not presumptuous in one whose experience in the Indian service is as limited as mine, let me raise a question at this time as to the line along which the Indian schools can do the greatest good. It is, of course, assumed that the good these schools are established and maintained to do is that to Indians, tho some may have a conception like that held by a certain politician, who, while recognizing that laws were to be framed in the interest of the greatest number, candidly admitted that, as he saw the situation, the greatest number was No. 1.

What is the greatest good we can do the Indians of the present generation? To make them self-supporting, and, consequently, self-respecting citizens.

President Roosevelt, in his first annual message to Congress, said: "One of the greatest needs of the Indians of the present generation is confident command of colloquial English." With this statement I fully agree, but make the point that the need is simply the means to an end, and, by supplying that, it will go farther towards putting the Indians on a self-supporting basis than will anything else. Of course, neither we nor the Indians must get the idea that mere "talk," even if it be English, will produce the desired result. Of course, the idea is that, when Indians are given "confident command of colloquial English," they are thereby put into closer touch with our civilization than by any other single factor, and given the most potent means of acquiring the knowledge necessary for their advancement.

At the risk of being charged by teachers with heresy, I will say that, to my mind, if the Indian children shall be taught to speak everyday English, it will be of more importance to them than all the other class-room knowledge that can be given them; and, further, that the children can be better taught to speak English outside than inside the class-room.

Admitting that the speaking of English is a means to an end, along what line should Indian children be led in the acquirement and exercise of the accomplishment as being the surest to reach the desired result—namely, self-support? Along the industrial line, will be the most general answer; or, to put it more correctly, along the line of physical rather than mental activities. Hence it is that, under the policy of the Indian Office, our Indian schools are largely of an industrial character, and instruction in shop, farm, and house work is supposed to have a prominent place in the educational scheme.

It is admitted, I presume, that the greatest good we can do the Indian children is to make them self-supporting citizens. It will also be readily admitted, by all who know anything about the Indians and their environments, that if they are to become self-supporting, it must in very large measure be by some branch of farming.

Let me say, in conclusion, that from my point of view, if the government is to accomplish, in any reasonable length of time, its purpose of making the Indians self-supporting by means of instruction given in the Indian schools, it must, by the raising of salaries and educational requirements, put into these schools educated and trained industrial employees and require of them that they be teachers always, and of the "whys" as well as the "hows."

S. M. McCOWAN, SUPERINTENDENT OF CHILOCCO AGRICULTURAL SCHOOL, CHILOCCO, OKLA.

It gives me peculiar pride and pleasure to have this opportunity of responding to the many cordial greetings which have been extended to us this morning. I especially appreciate the many kind words of praise of our Indian exhibit and model school. These are primarily intended to illustrate the great progress which is being made in educating and uplifting the Indian.

Results are beginning to show. We are beginning to reap the harvest of years of sowing. We can now see for ourselves what Commissioner Morgan saw years ago, that Indian nature is but human nature bound in red. God never yet marooned a soul. He started every human being out equipped with all the elements of manhood—all the elements of greatness. And he does not maroon the Indian's soul, for all the Indian needs, as Commissioner Jones has aptly said, is to be given a white man's chance.

I want the Indian exhibit to speak for me—it already speaks for itself. The exhibit and the model Indian school show, in the most practical way possible, the progress the Indian is making and the rapid strides he is taking toward civilization. The model Indian school will show that the young Indian is being instructed, not only in the ordinary English branches, but in the practical industrial arts which will enable him in adult life to be self-reliant and self-supporting, and consequently a good man and a good citizen.

PAPERS AND DISCUSSIONS

EFFICIENCY IN THE INDIAN SERVICE

DR. JOHN T. DOYLE, SECRETARY OF THE UNITED STATES CIVIL SERVICE COMMISSION, WASHINGTON, D. C.

Since the methods employed in other schools need adaptation to fit them to the teaching of Indians, the subject of Indian education has problems which are peculiar to itself. Out of the deliberations of Indian educators in congresses such as this come improved methods of instruction, appropriate text-books, unity of effort, and an organized system of education. As I have been identified with the cause of civil-service reform, I presume I shall be expected to speak to you upon the relations of that reform to Indian education, but I shall try to speak to you practically rather than professionally. The character of Indian teaching depends upon the character of the teaching force, and it is therefore fundamental that those appointed shall be capable and of good character. The method of their selection should be designed to this end. To obtain suitable employees, particularly at remote places, where the surroundings are not attractive, is very difficult, but vital. Then, too, the qualifications required are unusually varied. Work among the Indians reverts to earlier types, and there is little subdivision of labor attempted upon reservations. This makes it difficult sometimes to obtain persons who have all the qualifications required for the particular position. For instance, the clerk of an agency or of a school should have integrity, should be a good accountant, and should have sufficient executive ability to enable him to perform, in the absence of the agent, the duties of that position also. The physician of an agency or of a school should bring to his work, to even a larger degree than usual, the skill and self-denial which characterize the profession, because of the ignorance and helplessness to which he ministers and the need of winning the Indian away from the superstition of the medicine man. The farmer must be familiar with the different kinds of farming that the locality of the reservation requires, and be able to impart his knowledge to others, to induce the Indians to become interested in farm work, and to encourage the indolent to be industrious. The blacksmith should be acquainted with iron-working in general, ingenious enough to work in various allied lines of handicraft, even without a complete outfit of tools; as should also the carpenter, the miller, the sawyer, and other mechanics.

It will thus be seen that the inherent difficulties in the way of securing employees for the Indian service are much greater than in almost any other service. The law requires that the service shall be recruited thru free, open, competitive examination, and there is therefore the widest possible field for securing employees irrespective of party, creed, or personal influence. In view of the peculiar conditions existing in the Indian service, persons selected

for all positions, with the possible exception of physician, should have teaching ability, as the purpose of their employment is essentially that of instruction. The examinations are designed, therefore, to test the knowledge of the competitor, and to determine as far as possible his ability to impart instruction to others. They are made as practical as possible, and are modified from time to time as experience requires. Previous experience is given consideration in some of these examinations, and in the non-educational examinations it constitutes 60 per cent., while the elements of age and physical condition constitute the remaining 40 per cent.

The progress that is being made in civilizing the Indian is largely due to the efficiency of the teaching force. Upon your individual efforts as teachers, and your missionary zeal, the Indian comes out of his isolation and savagery into assimilation with his white neighbors. From being a menace to social order he becomes a contributor to it and is absorbed into the civilization of the Republic.

It is your privilege and opportunity to aid in this civilizing work, and to bring your intelligence, skill, and zeal to the betterment of the condition of these fellow-beings of ours, leading them in a few generations into the wisdom and opportunities which it has taken long centuries of struggle for the white race to attain. We take by the hand the Cuban, the Hawaiian, the Porto Rican, the Filipino, and the Indian, and bid them be our brothers and share our blessings with us. In this benevolence we obey the injunction of John Locke, who said: "I think everyone, according to the way Providence has placed him in, is bound to labor for the public good as far as he is able."

I have said that your work in civilizing the Indian is a privilege, a duty, and an opportunity. In this I do not wish to be understood as indulging in mere commonplace expressions, or as underrating the difficulties or self-sacrifice required in the task. Your task is a very difficult one, and only as it is inspired and directed by more than ordinary zeal and intelligence will it result in good to the Indians and to yourselves. There used to be many who refused to believe in the possibility of good resulting from governmental, religious, or humanitarian effort to redeem the Indian from his deplorable condition, just as there are many even now who refuse to believe that we can assist the Filipino, of untutored mind and body, to bear the hard burden of civilized life. The prophets to the contrary, we have helped the Indian, and we are helping the Filipino, and we shall keep on in our work until with sound bodies and disciplined minds, capable of systematic labor, they are living lives of contentment and happiness. We have but to witness the wise and good work that you are doing for the elevation of the Indian to see how ready has been his response to your appeal to his moral nature. That response has been greatest where your sympathies and labors have been strongest. Your work has proved that the Indian will advance in civilization by methods which will win his confidence.

One of the greatest forces in the betterment of the Indian has been the

raising of the standard of the civil service and in retaining faithful employees in office. We now have a system enforced to the end that the persons appointed in the Indian work shall be possessed of integrity, the requisite degree of knowledge, of experience, and of administrative capacity, sympathy for the Indian, and enthusiasm in the work of teaching. Where the lives and welfare of human beings are at stake it is vital that those put in charge shall be honest and capable.

The teacher who enters the service thru a civil-service examination is appointed upon probation, and that probation is the most important part of his examination. The same laws which determine success or failure in the business world apply in much the same way in the public service. It is true that the motives are different and that personal favoritism, political influence, and prejudices of one sort or another incident to human nature, sometimes vitiate appointments, promotions, and removals, and operate to defeat the just claims of merit; but, taking the classified service in the main, the competent and deserving are advanced. It is no disparagement of the employee's faithfulness to find him after many years of service in either a private or a public institution still holding a distinctly subordinate position. He may be the best of employees, courteous, obliging, obedient, prompt; and yet, if he lacks force, he may spend all his life in the sphere in which he started and make no gain in rank or authority. It is hard for such an employee to realize that the trouble lies in a fault of his own. The employee who wants to go on must keep his interest and intellectual activity alive. He must not only obey orders, but obey them intelligently and with discretion, and in doing so he will learn to command and be fit for promotion.

The outlook in the Indian work is full of hope. The service has been largely taken out of politics, abuses are being remedied, and the Indians are making steady progress toward civilization and self-support. The noble missionary efforts of Christian men and women have prevented the entire destruction of the race, preserved its native arts and crafts, and directed the forces of civilization against nomadic and lawless tendencies. It rests with you to carry on this work.

INDIAN MUSIC AND INDIAN EDUCATION

MISS NATALIE CURTIS, NEW YORK CITY

It is a great pleasure to me to confer with you today, for altho I am not a teacher in Indian schools, I share with you the love and interest in the Indians that must be felt by all who have lived among them.

You are all aware that at Hampton, Va., special effort is made to preserve among the negro students the old plantation melodies and typical negro songs. These songs are sung at the anniversaries and commencement exercises at

Hampton. Overwhelming is the effect of this natural folk-music as it pours from hundreds of untutored throats. Great is the service rendered by Hampton to the world by the perpetuation of this music, not only for the intrinsic value of the music itself, but for its reactionary effect upon the students.

The problems of negro education and the problems of Indian education differ, yet what I believe to be the ideal of Hampton holds good for the education of all races to develop character and individuality as the basis of all self-respecting citizenship.

This year, at its annual exercises, Hampton had its Indian students sing their native melodies. The music of the Indians is beautiful, striking, and unique, and its effect was a revelation to the listeners.

On my return to New York last winter I sang for representative and famous musicians some of our Indian melodies. These musicians had gathered in New York for the season from all parts of Europe and America. One of them was a German court conductor who leads concerts in London, Paris, and all the great cities of the civilized world. He was thrilled with the beauty of the Indian songs. "But these things are wonderful," he cried; "they are unique. How rich your country is in artistic material! This is something truly remarkable. Would that Wagner could have heard these songs. You have a wealth of inspiration in your country."

In the Government Building here at the World's Fair you will see models of ancient Indian architecture. Among the great buildings of the world this architecture stands unexcelled in its simplicity and dignity of line, its harmony of detail, its grace and beauty of ornament.

It is for the Indian schools to help fulfill America's duty of preserving for the world the striking and beautiful features of Indian life, Indian character, and Indian arts. If you are already attempting to retain the arts of basketry, weaving, and pottery, extend your efforts to the other arts as well—the poetry and music of the Indians. Let the Indian student record in written form all that he can find of his native art and of his people's unwritten literature; for literature it is. Let this be done now—now before it is too late. Begin in the kindergarten. Draw out the Indian himself, the real child. Allow his creative instinct a chance to develop along natural lines. Where you have native teachers the task becomes an easier one. Confer with these native teachers as to the best means of gaining your aim.

In the Government Building you will see a mantelpiece designed by Angel de Cora, an educated, gifted, and noble young Indian woman. On this mantel are carved the fire symbols and fire sticks of the Indian. Framed amid these symbols is a painting of a fire-lit Indian camp, full of suggestive poetry and charm. Such work shows what native talent developed along native lines can mean economically as well as artistically to our country; for who can say, from a purely commercial standpoint, if we must indeed have it so, that such work is not of far more worth than the sort of wood-carving that means nothing to anybody and can be turned out wholesale by any machine?

Why, then, do we want Indian art preserved? For our own sake as well as for the best development of the Indian. As the Indian is to become part of the nation, it behooves us to absorb, in absorbing him, that which will add to our own native strength.

If the Indian woman sings as she grinds her corn; if the Indian sees poetry and beauty, not dollars only, in his waving field of grain, let us thank God with reverent hearts.

In the cultured circles of our eastern coast we hear the cry: "There is no art in America; our children must go to Europe to be educated." Did we but open our eyes and unstop our ears, we should find in our own land a wider road for inspiration in artistic development than can be offered by the time-beaten pathways of the Old World.

The Indian has much to bring to us—rich gifts of poetry, of art; yea more—gifts of human character rare and noble; and these gifts, if absorbed into our national life, might flower into such a garden of national art, character, and culture as would make it as distinct among nations as any country on the globe. Our civilization is but an aftermath of European culture; it is but a conglomerate reflection of the thought of the Old World. Yet there is one poem in our literature known thruout Europe as distinctively American; one poem taught in all the public schools of our land. What is it? *Hiawatha.* My friends, there are unwritten *Hiawathas* by the hundreds and the thousands.

Mistake me not. In pleading the cause of Indian individuality I am not one of those who believe that the Indian should be kept in a glass case like an ethnological specimen. The Indian is a man, not a curiosity. As a man and a noble man will he develop, and there is no logical reason why good citizenship and self-supporting industry be not compatible with the true and rightful growth of individuality. In our schools in the East we believe in the development of the individuality of each and every scholar, knowing that this is the way to make citizens. Once then, and for all, the Indian is a factor and a worthy factor in our national life. And if he be led to feel this true, if he be taught that we are glad and eager for his gifts, if he be gathered close to the very heart of our country and made to feel that in his own pulses throb its life-impulse, who shall say that this will make him less loyal to his country, less industrious as a citizen?

Oh, Indian workers, think of your possibilities! Think what your schools may mean! You are history-makers. To conserve all the noblest gifts and qualities of the Indian nature is your task. No man can consecrate himself too wholly; no man can give himself too utterly to this national cause. It is a debt we owe not only to the Indian and to our country; it is a debt we owe to our own manhood and womanhood, to our own fatherhood and motherhood, to posterity our children, and our God.

ABSTRACTS OF ADDRESSES AND DISCUSSIONS AT ROUND TABLE CONFERENCES

TOPIC—A REVIEW AND DISCUSSION OF POINTS GAINED FROM THE EDUCATIONAL EXHIBITS AND THE MODEL SCHOOLS OF THE EXPOSITION

BENJAMIN S. COPPOCK, school supervisor for the Cherokee Nation, I. T.—It is said that the Cherokee tribe of Indians is the largest in numbers in America and the most civilized. There are a good many things to learn from the history and present conditions of the Cherokee people. They are all civilized and self-supporting. We have a great many Cherokees who are highly educated and who have traveled extensively. Many of these are worth twenty, forty, or sixty thousand dollars. Many enjoy the comforts and conveniences of very elegant homes.

While we have a good school system, the part in which we most lack is the industrial work. I am very decidedly in favor of industrial education in all the schools in the service, especially that boys be taught to cultivate the soil. They should be instructed in farming, stock-raising, fruit-growing, etc. If we should put a hundred Indian girls and boys, as now educated, in our towns and cities, and a hundred boys who have learned trades, when the first hard times came, ninety-nine in every hundred would be out of a position. I think the Indian boy's place is in the country. If we give him an education in connection with the tilling of the soil, we are giving him the best possible education.

E. C. NARDIN, superintendent of Mount Pleasant Indian School, Michigan.—I was very much pleased to hear, at the meeting of the Elementary Department of the National Educational Association, one of the most popular speakers make the statement, in substance, that we must never give a child anything to make for which he himself does not have a definite use—never under any conditions whatever. That statement seemed to receive the hearty indorsement of every teacher present. Another point brought out, which seems to me of particular interest to the Indian workers, is that teachers should study the children and endeavor to lead them to unconsciously take an interest in the class-room work. There seems to be a general disposition to overlook this point. Teachers should study the children more closely and adapt the class-room exercises to the needs of the pupils, encouraging them to endeavor to overcome all the difficulties which are put in their way.

REV. J. A. SINCLAIR, principal of Regina Industrial School, Canada.—I came down here quietly, not appointed by anybody, hoping that I would not be asked to say anything. I came to look to you for assistance and to take notes with reference to dealing with the Indian. I must admit that in this you have passed us in the race. The statement has been made at this meeting that you have solved the Indian problem. I regret to say that we in Canada have not solved the problem, nor is the solution in sight. The most striking thing I have seen during this visit. and the visit I made to Hampton, Va., a few years ago, is the results of your work—the results in developing the character, the mind, and the heart of the pupils you are training. I was delighted to see in the 1903 report of the commissioner of Indian affairs that during the past year about 225 Indians were given employment in the Indian school service at salaries above $300 per annum. I made this statement at home some time ago, and I must say it created a sensation among those who are interested in the Indian cause. We have not reached such results as that.

I am delighted to see the tendency to make a greater effort to look at things from the Indian's standpoint. I may mention that one of the results of my visit to Hampton was the securing of one of the graduates of that institution as a teacher. She was recommended by the faculty and appointed, and I am glad to say that she has more than fulfilled our expectations. We are sorry to see her leave us and are having trouble to fill her place.

If you are producing in your schools Indian men and women who can do anything that white people can, and can do some things better, you are doing the very best thing for the Indian that can be done.

I wish to express my high appreciation of the work you are accomplishing and the progress you are making in developing the Indian into a loyal citizen.

W. H. Winslow, superintendent of Genoa Indian School, Nebraska.—One thing that struck me at the meeting yesterday was the remark of G. Stanley Hall that teachers were getting back to the idea that the best place for the American boy is on the farm. I am glad to see that teachers in the white schools are getting back to that idea; and if it is true with reference to the white boys in this country, it is true in a larger and better sense of the Indian boys and girls. I think the industrial work should be made very prominent in the Indian schools, especially the farm work. We get development of mind and muscle from our industrial training on the farm, and it should not be surprising to us at all that so many great men come from the farm. They are developed in a natural and normal way.

Another thing Dr. Hall said which impressed me was that after the close of the college or university courses there is a general letting down on the part of the men and women graduates. It struck me that this might teach us something in regard to the Indian boy and girl. If there is a general letting down on the part of the college or university graduates, how can we reasonably expect the Indian boy or girl to do any better?

C. F. Campbell, superintendent of Fort Shaw Indian School, Montana.—The Fort Shaw school is located in a northern section, and I think everyone there is in favor of manual training for our boys and girls, especially as it relates to cattle-raising and agriculture. The hope of the Indian of the Northwest lies exclusively, I think, in stock-raising and farming. I agree with the policy of the Indian Office that we should provide education along those lines.

Paph Julian, teacher of Day School No. 10, Pine Ridge, S. D.—I did not expect to be called upon at any of the meetings of the National Educational Association to do anything but listen.

I was much interested in the masterly address delivered by G. Stanley Hall, president of Clark University, which all of you heard yesterday at Festival Hall, and which could not fail to impress and help us.

It has been suggested to me that I say something to you about my methods of teaching at the Day School No. 10. I believe that teaching the Indian to speak English is of the first importance. My theory in regard to teaching is to use the most natural and simple methods. In teaching English I have a table on which are arranged various objects which are familiar to the children. I have one lesson in which all the objects are pairs —shoes, socks, suspenders, tongs, scissors, etc. Pupil No. 1 takes the shoes and says, "This is a pair of shoes, one, two." Then pupil No. 2 takes the shoes, and so on. But I shall not take up your time by going into further details. The main thing is to have a definite plan and carry it out in a practical and thoro manner.

John J. McKoin, superintendent of Siletz Indian School, Oregon.—What we should give the Indian is manual training. Teach him to love the soil and the products of the soil as a means of living. Two years ago I was asked to discuss that subject, and I said that the best hope for the Indian was to make him a farmer or stock-grower. Get him out on the farm or ranch, and teach him to raise cattle and stock of all kinds, and to become a useful citizen. I believe that in accomplishing this a great step forward will be taken in Indian education. We all know that the Indian does not love work and has an idea that it is undignified to work. Make him understand that there is dignity in toil, and that the best thing he can do is to labor in the field.

The subject on the program is "a review of the educational points gained from the educational exhibits and model schools." I think, if we will look at all we can, we shall

find much to carry back home with us and much that will be helpful to us. I think we may learn by looking over the exhibits that almost anything is possible with the Indian.

Miss Viola Cook, superintendent of Wild Rice River Indian School, Minnesota.—It seems to me that we are all agreed upon industrial training. About everything that can be said on the subject has been said. There is one thing I am especially interested in; that is, where teachers can get the manual training that all seem so much interested in.[1]

John A. Buntin, superintendent of Riverside Indian School, Oklahoma.—I am most interested in the industrial work, and that has been pretty well explained. We are all aware of the fact that only a few of the Indians can become doctors, lawyers, etc., and hope to cope with the white man; but everyone can learn to work his land and make a living.

E. B. Hinshaw, superintendent of Bloomfield Seminary, Indian Territory.—The best thing to do for the boys and girls of Indian Territory is to put them in the homes and on the farms. We speak of manual training, which is all right; but let us add to manual training industrial training. The very best thing the United States government ever did for the Indian was to allot his land and say to him: "That is your piece of ground; go cultivate it." The boy says: "This is my home; I will plant an orchard, and build a house and barn." When we have taught the Indians to love labor, love work, and do that work willingly, we shall have solved the Indian problem; and it is being solved.

S. M. McCowan, superintendent of Chilocco Agricultural School, Oklahoma.—I have been absolutely at a loss to know what to talk about, and I could not think of anything at all to say until our brother said that they were going to solve the Indian problem. Then I felt like getting right up and stating that we had already solved the Indian problem. I see that he is very curious to know how and where. We solved it when we made up our minds that there was no Indian problem; that Indians are just the same as white people; that they have the same elements of manhood; that they have the same talents; and that the same processes of evolution that have been followed so successfully in the cultivation of the white races will be followed with as much success in the cultivation and development of the red race.

It seems to me that this meeting should be turned into a love feast. We have every reason for congratulating each other. In my fifteen years in the service I have never met so many intelligent and cultured people. The personnel of the Indian service has taken immense strides forward. All you old teachers will agree with me. The civil service has done a great deal for us. We have developed ourselves. We have done much by studying the people we are trying to develop. We cannot develop ourselves without developing others.

I believe that we should prepare the Indian for the complications of today, for difficulties and discouragements that he will have to meet today, and not those of a hundred years ago.

In looking over the exhibits in the Education Building, and in the other buildings in the exposition grounds, we have found no reason to be ashamed of the work done in our Indian schools. I think we get closer to the student than the teachers in any other schools or any other system of schools. We should congratulate ourselves on having at the head of the service such a splendid man as Commissioner Jones. He deserves all the credit that can possibly be given him. He has stood by us in every way; he has done everything that can be done to develop the educational policy. And, if Miss Reel were not present I would include her.

T. G. Lemmon, superintendent of Grand Junction Indian School, Colorado.—I have just made my speech in the person of Mr. McCowan. Mr. Coppock made an assertion about the old-fashioned farm. Two hundred miles from where I am standing I got my

[1] In the Official Course of Study for the Indian Schools.

training in old-fashioned farming. I want the new-fashioned farming. At our school at Grand Junction there is no better strain of cattle than we are raising. There is no better school than the Grand Junction School. We want the farm work up to date. I am a farmer, and if I leave the Indian service, I expect to go on a farm. We are miserably short in the service in one thing, and that is in teachers that are worth what they should be on the farm. We get too many farmers that connot farm. I am in favor of an industrial normal department in some of our Indian schools, and I hope we shall do something definite in this direction.

A. O. WRIGHT, supervisor of Indian Schools.—When you go back to the schools which you represent, you should try to improve your work a little by taking up some line of study on Indian character, such as has been suggested here; it may be child study, comparing the Indian child in school on the same line as white children; it may be, as one of the Pine Ridge day-school teachers did, you will study the Indian in his home life. I would advise you all to take up some study of this nature as one of the things you are going to do. Do not consider yourselves banished from civilization. You have a strong sense of honor, and I would suggest that you determine to do your best for the development of the children under your care. Make it worth something for yourselves by having a little specialty of your own to work up where you are. In doing that you will be gathering material in line with what we have heard yesterday and today.

CLASSIFIED MEMBERSHIP BY STATES

IN THE

NATIONAL EDUCATIONAL ASSOCIATION

FOR THE YEAR 1904—(ST. LOUIS MEETING)

	ACTIVE MEMBERSHIP					Associate	Total Membership
	Life Directors	Life Members	Former Active	New Active	Total Active		
Totals	32	120	3,725	665	4,542	3,567	8,109
North Atlantic Division	11	22	1,408	71	1,512	128	1,640
South Atlantic Division	3	8	225	34	270	119	389
South Central Division	1	4	186	54	245	262	507
North Central Division	14	76	1,539	450	2,079	2,861	4,940
Western Division	3	9	298	46	356	189	545
Dependencies	....	....	14	5	19	2	21
Foreign (incl. Corres. M'b'rs, 28)	....	1	55	5	61	6	67
North Atlantic Division—							
Maine	1	1	35	2	39	8	47
New Hampshire	....	1	28	....	29	1	30
Vermont	....	....	27	....	27	2	29
Massachusetts	2	3	354	13	372	33	405
Rhode Island	1	....	34	3	38	....	38
Connecticut	....	....	59	4	63	8	71
New York	4	8	621	37	670	30	700
New Jersey	1	3	88	2	94	17	111
Pennsylvania	2	6	162	10	180	29	209
South Atlantic Division—							
Delaware	....	....	8	....	8	....	8
Maryland	....	1	39	5	45	12	57
District of Columbia	2	3	41	3	49	2	51
Virginia	....	....	27	3	30	7	37
West Virginia	1	1	19	....	21	18	39
North Carolina	....	2	19	4	25	10	35
South Carolina	....	1	18	2	21	3	24
Georgia	....	....	38	10	48	42	90
Florida	....	....	15	7	22	25	47
South Central Division—							
Kentucky	....	1	37	8	46	28	74
Tennessee	1	1	20	6	28	17	45
Alabama	....	....	38	14	52	22	74
Mississippi	....	....	12	3	15	78	93
Louisiana	....	....	23	3	26	15	41
Texas	....	....	26	13	39	37	76
Arkansas	....	....	13	1	14	23	37
Oklahoma	....	1	13	3	17	22	39
Indian Territory	....	1	4	3	8	20	28
North Central Division—							
Ohio	1	12	263	20	296	97	393
Indiana	....	2	106	20	128	66	194
Illinois	7	6	439	68	520	419	939
Michigan	2	....	149	8	159	31	190
Wisconsin	....	31	101	10	142	53	195
Iowa	....	2	83	19	104	85	189
Minnesota	1	1	132	15	149	50	199
Missouri	2	2	99	270	373	1,926	2,299
North Dakota	....	....	36	4	40	8	48
South Dakota	....	....	37	6	43	27	70
Nebraska	....	1	50	5	56	47	103
Kansas	1	19	44	5	69	52	121
Western Division—							
Montana	....	....	23	7	30	12	42
Wyoming	....	....	7	2	9	3	12
Colorado	2	1	56	11	70	60	130
New Mexico	....	....	14	1	15	12	27
Arizona	....	....	11	2	13	7	20
Utah	....	....	20	2	22	9	31
Nevada	....	....	2	....	2	....	2
Idaho	....	....	10	2	12	14	26
Washington	....	....	42	11	53	42	95
Oregon	1	....	7	1	9	5	14
California	....	8	106	7	121	25	146
Dependencies—							
Alaska	....	....	1	....	1	....	1
Hawaii	....	....	5	....	5	....	5
Philippine Islands	....	....	4	1	5	2	7
Porto Rico	....	....	4	4	8	....	8
Other Countries (incl. Corres. M'b'rs, 27)	....	1	55	5	61	6	67

RECORD OF MEMBERSHIP BY STATES

IN THE

NATIONAL EDUCATIONAL ASSOCIATION

FOR EACH YEAR FROM 1884–1894, INCLUSIVE

Excepting for 1893, when no regular meeting was held. Heavier numbers show membership from the state in which the meeting of the year was held.

The first column shows average, by states, of attendance at following meetings: Madison, '84 (2,729); Saratoga, '85 (625); Topeka, '86 (1,197); Chicago, '87 (9,115); San Francisco, '88 (7,216); Nashville, '89 (1,984); St. Paul, '90 (5,474); Toronto, '91 (4,778); Saratoga, '92 (3,360); Asbury Park, '94 (5,915).

State or Territory	Av. for Ten Years, 1884–1894 (incl.)	Denver	Buffalo	Milwaukee	Washington	Los Angeles	Charleston	Detroit	Minneapolis	Boston	St. Louis
		1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
Totals	4,224	11,297	9,072	7,111	10,533	13,656	4,641	10,182	10,350	34,984	8,109
North Atlantic Division	739	1,462	2,940	942	1,402	1,877	783	1,309	1,548	14,163	1,640
South Atlantic Division	122	289	237	172	1,146	361	1,181	473	363	1,845	389
South Central Division	324	899	419	304	1,588	818	414	768	301	1,954	507
North Central Division	2,388	7,211	5,083	5,315	5,882	5,074	1,903	6,981	7,535	15,619	4,940
Western Division	569	1,403	377	366	412	5,487	354	686	481	937	545
Dependencies	....	....	....	....	....	....	....	16	17	25	21
Foreign (incl. Cor. M'b'rs, 28)	82	33	16	12	13	39	6	39	105	441	67
North Atlantic Division—											
Maine	14	24	7	7	10	16	12	13	32	677	47
New Hampshire	17	27	8	6	6	14	5	7	26	432	30
Vermont	17	13	14	15	11	11	8	21	25	189	29
Massachusetts	172	191	197	159	159	294	139	196	281	**7 459**	405
Rhode Island	25	55	35	23	36	50	18	23	28	335	38
Connecticut	29	26	43	24	31	46	24	41	68	315	71
New York	213	521	**2,132**	411	509	756	327	512	595	2,323	700
New Jersey	124	168	179	110	172	154	93	173	116	408	111
Pennsylvania	128	437	325	187	558	536	157	323	385	2,025	209
South Atlantic Division—											
Delaware	3	17	11	8	9	9	4	7	13	47	8
Maryland	16	53	23	31	80	50	81	76	62	313	57
District of Columbia	.. 18	47	29	57	**382**	99	57	137	97	508	51
Virginia	8	36	21	10	63	22	38	22	27	186	37
West Virginia	17	49	52	16	129	29	18	56	28	137	39
North Carolina	8	5	14	4	76	**27**	72	29	33	131	35
South Carolina	13	1	31	7	92	22	**691**	30	25	98	24
Georgia	36	62	43	30	261	87	145	77	43	363	90
Florida	3	19	13	9	54	16	71	39	35	62	47
South Central Division—											
Kentucky	60	176	77	98	408	136	68	215	73	521	74
Tennessee	118	66	57	25	248	113	96	108	37	402	45
Alabama	40	41	59	25	229	69	74	35	52	231	74
Mississippi	26	49	25	19	100	65	27	20	15	145	93
Louisiana	15	108	25	42	146	60	26	46	41	210	41
Texas	38	294	99	41	257	221	55	148	26	229	76
Arkansas	24	84	63	41	132	96	46	116	28	114	37
Oklahoma	....	58	14	11	60	47	21	71	17	55	39
Indian Territory	3	23	....	2	7	11	1	9	12	47	28
North Central Division—											
Ohio	298	592	565	357	1,313	580	286	753	486	2,653	393
Indiana	137	321	250	205	591	354	173	357	261	1,086	194
Illinois	510	**1,495**	1,174	785	1,340	1,216	557	1,142	1,247	4,013	939
Michigan	126	204	589	327	379	196	110	**2,193**	372	1,383	190
Wisconsin	205	188	413	**1,870**	361	287	187	293	677	1,078	195
Iowa	284	1,086	578	543	383	593	82	444	801	1,176	189
Minnesota	207	193	303	333	164	267	121	382	**2,498**	1,111	199
Missouri	215	1,113	406	285	795	673	166	415	187	1,471	**2,299**
North Dakota	52	28	34	53	26	38	16	98	308	161	48
South Dakota		78	83	118	45	86	30	141	390	271	70
Nebraska	138	742	363	251	103	331	86	325	196	707	103
Kansas	216	1,171	325	187	382	453	89	348	109	508	121
Western Division—											
Montana	10	15	43	78	20	70	24	88	60	82	42
Wyoming	5	48	7	10	8	13	7	15	10	26	12
Colorado	47	**1,136**	177	145	196	465	65	118	74	305	130
New Mexico	4	26	16	21	27	90	18	31	15	26	27
Arizona	5	11	6	6	21	158	19	34	22	24	20
Utah	16	89	37	22	25	106	8	32	25	55	31
Nevada	14	2	5	3	2	49	3	6	7	7	2
Idaho	2	3	10	6	3	32	11	19	13	27	26
Washington	6	6	16	8	12	56	20	81	71	108	95
Oregon	25	14	9	7	10	79	13	45	27	26	14
California	434	53	51	56	87	**4,357**	156	217	157	251	146
Dependencies—											
Alaska	....	....	....	....	1	1	1	1	1	1	1
Hawaii	....	....	....	....	....	9	5	4	5	12	5
Porto Rico	....	....	....	....	....	2	4	5	5	8	8
Philippine Islands	....	....	....	....	....	....	3	6	6	4	7
Foreign	82	33	16	13	13	39	6	39	105	441	....

INVENTORY AND PRICE LIST OF PUBLICATIONS OF THE NATIONAL EDUCATIONAL ASSOCIATION IN THE DEPOSITORY AT WINONA, MINN., JULY 1, 1904

PROCEEDINGS OF THE NATIONAL TEACHERS' ASSOCIATION

[IN PAPER COVERS]

		Prices in sets, carriage not prepaid	Price per single volume, carriage prepaid
1857	Philadelphia (organized)	*	*
1858	Cincinnati	*	*
1859	Washington	*	*
1860	Buffalo	*	*
1861	(No meeting)	–	–
1862	(No meeting)	–	–
1863	Chicago	*	*
1864	Ogdensburg	*	*
1865	Harrisburg	*	*
1866	Indianapolis	*	*
1867	(No meeting)	–	–
1868	Nashville	*	*
1869	Trenton	*	*
1870	Cleveland	*	*

BOUND VOLUMES OF PROCEEDINGS OF THE NATIONAL EDUCATIONAL ASSOCIATION

1871	St. Louis	*	*
1872	Boston	*	*
1873	Elmira	$1.25	$1.50
1874	Detroit	1.25	1.50
1875	Minneapolis	1.25	1.50
1876	Baltimore	1.25	1.50
1877	Louisville	1.25	1.50
1878	(No meeting)	....	....
1879	Philadelphia	1.25	1.50
1880	Chautauqua	1.25	1.50
1881	Atlanta	1.25	1.50
1882	Saratoga Springs	*	*
1883	Saratoga Springs	*	*
1884	Madison	1.50	1.75
1885	Saratoga Springs	*	*
1886	Topeka	1.50	1.75
1887	Chicago	1.50	1.75
1888	San Francisco	1.50	1.75
1889	Nashville	1.50	1.75
1890	St. Paul	1.75	2.00
1891	Toronto	1.75	2.00
1892	Saratoga Springs	1.75	2.00
1893	Chicago (International Congress of Education)	1.75	2.00
1894	Asbury Park	1.75	2.00
1895	Denver	1.75	2.00
1896	Buffalo	1.75	2.00
1897	Milwaukee	1.75	2.00
1898	Washington, D. C.	1.75	2.00
1899	Los Angeles	1.75	2.00
1900	Charleston	1.75	2.00
1901	Detroit	1.75	2.00
1902	Minneapolis	1.75	2.00
1903	Boston	1.75	2.00
1904	St. Louis	1.75	2.00
	Subject Index (from 1857–1897, inclusive)	free	1.00

A complete *Subject Index* of all published proceedings to 1897 has been issued in a separate volume, bound in cloth, uniform with the volumes of proceedings. The index will be sent free of charge to those who purchase five or more volumes; to others it will be sent postpaid for $1.00. The index volume will be supplied to active members for 25 cents for postage, wrapping, etc.

* Stock exhausted.

REPRINTS FROM THE ANNUAL VOLUMES OF PROCEEDINGS

[BOUND IN PAPER COVERS]

			[1]Price per single copy by mail
Historical Sketch of the National Educational Association, 1857–91			$0.25

[2] PROCEEDINGS OF THE DEPARTMENT OF SUPERINTENDENCE

891	Philadelphia,	147 pages	$0.25
1892	Brooklyn,	237 "	.25
1893	Boston,	—— "	*
1894	Richmond,	184 "	.25
1895	Cleveland,	——	*
1896	Jacksonville,	——	*
1897	Indianapolis,	——	*
1898	Chattanooga,	194 "	.25
1899	Columbus,	—— "	*
1900	Chicago,	120 "	.25
1901	Chicago,	118 "	.25
1902	Chicago,	165 "	.25
1903	Cincinnati,	166 "	.25

PROCEEDINGS OF THE NATIONAL COUNCIL OF EDUCATION

1885	Saratoga,	120 pages	$0.15
1888	San Francisco,	75 "	.15
1889	Nashville,	98 "	.15
1890	St. Paul,	80 "	.15
1891	Toronto,	114 "	.15
1894	Asbury Park,	86 "	.15
1895	Denver,	81 "	.15
1896	Buffalo,	78 "	.15
1898	Washington,	102 "	.15
1900	Charleston,	67 "	.15
1901	Detroit,	150 " (Henry Barnard Number)	.15
1903	Boston,	76 "	.15

REPORTS OF SPECIAL COMMITTEES

[3]Report of Committee of Ten on Secondary Schools,	249 pages	$0.30
[3]Report of Committee of Fifteen on Elementary Schools,	235 "	.30
Report of Committee on Rural Schools,	228 "	.25
Report of Committee on College-Entrance Requirements,	188 "	.25
Report of Committee on Normal Schools,	64 "	.15
Report of Committee on Public Libraries and Public Schools,	80 "	.15

SEPARATES OF DEPARTMENTS (Boston and St. Louis Meetings)

The General Sessions	$0.15
The National Council	.10
The Department of Kindergarten Education	.10
The Department of Elementary Education (not including joint sessions)	.05
The Department of Secondary Education	.10
The Department of Higher Education	.10
The Department of Normal Schools	.10
The Department of Manual Training (including joint sessions of Elementary and Art Departments)	.10
The Department of Art Education (not including joint sessions)	.05
The Department of Child Study	.10
The Department of Science Instruction	.10
The Library Department	.10

IN ADDITION TO THE ABOVE THE FOLLOWING SEPARATES REPRINTED FROM THE ST. LOUIS VOLUME MAY BE OBTAINED AT THE PRICES INDICATED

Department of Superintendence (Atlanta meeting)	$0.25
Department of Physical Education	.10
Department of Music Education	.10
Department of Business Education	.10
Department of School Administration	.05
Department of Special Education	.10

* Stock exhausted.

[1] All orders for reprints should be accompanied by remittance; a discount of 20 per cent. will be allowed on orders for ten or more copies to one address, by prepaid express.

[2] Proceedings of the Department of Superintendence previous to 1891 were printed by the Bureau of Education at Washington, D. C.

[3] The Reports of the Committee of Ten and of the Committee of Fifteen are printed and sold by the American Book Co. for 30 cents each, postage paid.

All reprints noted above are included in the bound volumes of Proceedings except the Report of the Committee of Ten on Secondary Schools.

All publications listed above can be obtained of the undersigned.

IRWIN SHEPARD, *Secretary N. E. A.*,
Winona, Minn

GENERAL INDEX

[Names of department presidents and authors of formal papers are set in SMALL CAPITALS. A † indicates a memorial sketch.]

Active Members, Annual Business Meeting of, 25.
Act of Incorporation, 4.
Address before the Kindergarten Department—Madame Ottelia Bondy, 415.
Address of Welcome, Department of Kindergarten Education—Mrs. Fannie Lachmund, 381.
Addresses of Welcome, General Sessions—W. T. Carrington, 43; C. M. Woodward, 45; F. Louis Soldan, 47; Rolla Wells, 49; David R. Francis, 50; Howard J. Rogers, 53; W. S. Chaplin, 54.
Addresses of Welcome, Department of Indian Education, 964.
Administration and Supervision: I, The Superintendent as a Man of Affairs—William H. Maxwell, 259; II, The Assistant to the Superintendent—His Functions and Methods of Work—Miss Alice E. Reynolds, 264; The Management of Special Departments, C. N. Kendall, 271; Discussion, 277.
Adult Education—Henry M. Leipziger, 284.
Advantages of Co-ordinate (Annex) Method in Education—Charles F. Thwing, 547.
Advisory Committee to the Council, Members of, 39.
AFFLECK, G. B.—Object and Methods of Physical Training in Normal Schools, 817.
Ahern, Mary Eileen—Secretary's Minutes, Library Department, 911.
Aim of Modern Language Study in Our Secondary Schools — George Arthur Smith, 522; Discussion, 524.
ALDRICH, FRED DAVIS—The Function of Grammar in the Teaching of Modern Language, 525.
Amendments to Constitution and By-Laws, How Made, 4.
American People, Art Education for the, 670.
American Navy, Education in the, 120.
ANDREWS, E. BENJAMIN—The General Tendency of College Athletics, 549.
ANGELL, JAMES B.—Coeducation in Relation to Other Types of College Education for Women, 548.
Animal Pets in the Kindergarten, The Value of, 432.
Annual Business Meeting of Active Members, 25.
Applied Geography, Illustrated from the Louisiana Purchase—Arthur G. Clement, 853; Discussion, 857.
Appropriations, Recommended, 341; Granted, 39; New Rules Governing, 39.
Architecture of the Exposition—George Julian Zolnay, 167.
ARNOLD, E. HERMANN—The Importance of Walking as a School Exercise, 804; President, Department of Physical Education, 803.
Art in Connection with Hand-Work, Possibilities of, 603.
Art Education, Department of, 631.
Art Education for the American People, as Shown at the Louisiana Purchase Exposition in the Normal Schools, Art Schools, and Art Handicraft—Miss Anna Vandalaine Henkel, 670.
Art Education in England, 659.
Art Education for the People—Mrs. Matilda Evans Riley, 654.
Art Education for the People in Germany—Leopold Bahlsen, 648.
Art, The Educational Influence of Public Outdoor, 665.
Art Educator, The Influence of a Great Exposition as an, 632.
Art Exhibits in the Exposition—Halsey C. Ives, 157.
Art, France—A Nation of, 643.
Art School and Art Museum, Influence on Civic Life, 637.
Art Study, English as an, 502.
Artistic Handicraft in Sweden, Education for, 667.
Assistant to the Superintendent, The—His Functions and Methods of Work, 264.
Athletics, Character in, 558.
Athletics and Collateral Activities in Secondary Schools—F. D. Boynton, 206.
Athletics, Effects of, on the Morale of the College, 564.
Athletics, General Tendency of College, 549.
Athletics, Objects and Methods in Colleges and Universities, 822.
ATKIN, PERCY—Organization for Art Education in England, 659; Popular Education in England, 83.
Atypical Children, Education of, in Public Schools, 754.
Auditors' Certificates, Treasurer's accounts, 18; Trustees' accounts, 20.
Avenues of Language-Expression in the Elementary School: I, Percival Chubb, 452; II, Miss Della Justine Long, 459; III, Frank W. Cooley, 464.

Ayres, Brown—Progress of the South, as Shown by Exhibits, 627.
Bacon, Louis A.—Report on Work in Manual Training Shown by the Exhibits from Indianapolis, Ind., 605.
Bahlsen, Leopold—Art Education for the People in Germany, 648; The Preparation of Teachers in Germany, 140.
Balliet, Thomas M.—The Organization of a System of Evening Schools, 278.
Bass, E. E.—Discussion, 277.
Batt, Max—Discussion, 532.
Bayliss, Alfred—What May Be Done for Manual Training in Country Schools? 623.
Bennett, Charles A.—Report on the Exhibit of the Bradley Polytechnic Institute, 612.
Bingham, Reuben S.†—Frank B. Cooper, 368.
Biological Laboratory of the High School, The Microscope in the, 859.
Bishop, J. Remsen—Report of the Committee of Nine, 730; Discussion, 508.
Bishop, N. L.—Secretary's Minutes, Round Table of City Superintendents, 179.
Blanchard, William M.—The Value of Chemistry in Secondary Education, 872.
Board of Directors, How Elected, 2; Duties of, 3; List of, for 1903–4, 8; For 1904–5, 12.
Board of Directors, Minutes of, for 1903–4, 32; for 1904–5, 38.
Bolton, Frederick E.—What May the Secondary Schools of the United States Learn from a Study of German Secondary Education? 478.
Bondy, Madame Ottelia—Address before the Kindergarten Department, 415.
Booth, F. W.—Chairman of Committee on Statistics of Defective Sight and Hearing of Public School Children, 952.
Boynton, F. D.—Athletics and Collateral Activities in Secondary Schools, 206.
Bradley Polytechnic Institute, Report on the Exhibit of the, 612.
Brittain, M. L.—Higher Standards in the Employment of Teachers, 320.
Bronson, Miss Minnie—The Resources of the United States, as Illustrated by the Louisiana Purchase Exposition, 717.
Brooks, Josephine D.—Discussion, 531.
Brown, George W.—Discussion, 716.
Brown, J. Stanley—In What Respects Should the High School Be Modified to Meet Twentieth-Century Demands? 491; Discussion, 495.
Bruce, William George—Secretary's Minutes, Department of School Administration, 897.
Bryan, E. B.—Education in the Philippines, 100.
Bryan, William L.—In What Respects Should the High School Be Modified to Meet Twentieth-Century Demands? 496.
Bryan, W. J. S.—A Comparative Study of the Methods of Science Instruction of the Various Countries, as Shown by Their Exhibits, 844.
Buchanan, J. T.—Discussion, 495, 496.
Buck, B. F.—In What Respects Should the High School Be Modified to Meet Twentieth-Century Demands? 496.
Buck, Philo Melvyn—Laboratory Method in English Composition, 506.
Buckbee, Miss Anna—Methods of Teaching Child Study in Normal Schools, 787.
Buntin, John A.—Discussion, 984.
Bureau of Education, Exhibit of the, 183.
Burnham, William H.—The Hygiene of the Kindergarten Child, 416.
Burrill, Mr.—Discussion, 521.
Business Education, Department of, 709.
By-Laws, 4.
Caldwell, Otis W.—Discussion, 894.
Calendar of Meetings, 6.
Campbell, C. F.—Discussion, 983.
Campbell, Mary R.—The Chicago Hospital School for Nervous and Delicate Children—Its Educational and Scientific Methods, 952; Some Laboratory Investigations of Subnormal Children, 744; Discussion, 802.
Capabilities of School Children, Diagnosis of the, 738.
Cardinal Satolli, Remarks by, 29.
Carr, Elizabeth H.—Secretary's Minutes, English Conference, 473.
Carrington, W. T.—Address of Welcome, 43.
Certificates and Diplomas, Recognition of, 306; Committee on, 178.
Chalmers, W. W.—Objects and Methods of Physical Training in Primary and Grammar Schools—From the Standpoint of the General Teacher, 807.
Chamberlain, Arthur H.—President, Department of Manual Training, 953.
Chambers, Will Grant—Questionnaire Methods of Child Study, 762.
Chaplin, W. S.—Address of Welcome, 54.
Character in Athletics—William H. P. Faunce, 558.
Chemistry in Secondary Education, 872.
Chessin, A. V.—Discussion, 521.
Chicago Hospital School for Nervous and Delicate Children, The—Its Educational and Scientific Methods.—Mary R. Campbell, 952.
Child, The Individual, 422.
Child Psychology *versus* Adult Psychology, 568, 571.
Children from Ten to Eighteen Years, Waywardness in, 797.
Child Study, Department of, 737.
Child Study in the Grades—P. W. Horn, 797.
Child Study in Grammar and Secondary Grades, 797.
Child Study in the Kindergarten, Method of, 794.

Child Study in Kindergarten and Primary Grades, 791.
Child Study, Laboratory Tests as a Means of, 770; Methods and Results in, 791; Questionnaire Methods of, 762; Unsolved Problems of, 782.
Child-Study Methods at the St. Louis Exhibit, 759.
Child Study in Normal Schools, Methods of Teaching, 787.
Chittenden, Orietta S.—Secretary's Minutes, Department of Kindergarten Education, 380.
Chrisman, Oscar—Relation of the Home to the Wayward Child, 800; Sight and Hearing in Relation to Education, 939.
Chubb, Percival—Avenues of Language-Expression in the Elementary School, 452.
Chubbuck, Levi—Response to Addresses of Welcome, 974.
Church Related to Higher Education, 68.
Civic Life, The Influence of the Art School and Art Museum on, 637.
City Superintendents, Round Table of, 179, 322.
Clement, Arthur G.—Applied Geography, Illustrated from the Louisiana Purchase, 853.
Cobb, Herbert E.—The Real Problem of the Teacher of Mathematics, 518.
Cochran, R. A.—President, Department of Indian Education, 963.
Coeducation—G. Stanley Hall, 538.
Coeducation as It Has Been Tested in State Universities—R. H. Jesse, 542.
Coeducation in Relation to Other Types of College Education for Women—James B. Angell, 548.
College Athletics, The General Tendency of, 549; Objects and Methods, 822.
College Education for Women, Coeducation in Relation to Other Types of, 548.
College, The Place of the Small, 134.
Collender, Professor—Discussion, 522.
Commercial Schools, The Work of Private, 714.
Committee of Conference on a Uniform System of Key-Notation for Indicating Pronunciation, 175.
Committee of Nine, Report of, 719, 729, 730; Discussion, 736.
Committee on Industrial Education in Rural Schools, Appropriation for, 39.
Committee on Investigations and Appropriations, Members of, 336; Report of, 338.
Committee on Nominations, Members of, 24; Report of, 26.
Committee on Resolutions, Department of Superintendence, 177.
Committee on Resolutions, Members of, 23; Report of, 30.
Committee on Salaries, Tenure, and Pensions of Teachers; Appropriation for, 39; Preliminary Report of, 370; Members of, 377.
Committee on Simplified Spelling, Report of, 174.
Committee on Statistics of Defective Sight and Hearing of Public School Children, Report of, 946.
Committee on Taxation, etc., Appropriation for, 39.
Committee on Universal Key-Notation, Appropriation for, 39.
Comparison of Methods and Results in Child Study, 791.
Comparative Study of the Methods of Science Instruction of the Various Countries, as Shown by Their Exhibits—W. J. S. Bryan, 844.
Comstock, Clarence E.—The Unification of Secondary Mathematics, 519; Discussion, 521.
Conference, English, 502; Modern Language, 522.
Conferences, Round Table, 502.
Consolidation of Schools—J. Y. Joyner, 313.
Constitution of General Association, 1.
Constructive Idea in Education—Wilbur S. Jackman, 594.
Contributions of Zoölogical Psychology to Child Study—Linus W. Kline, 776.
Conversation as a Vehicle of Instruction in Modern Languages, 532.
Cook, Frank—Discussion, 931.
Cook, John W.—Herbert Spencer's Four Famous Essays, 223; Memorial Address on William Bramwell Powell, 361; The Need of a New Individualism, 62.
Cook, Miss Viola—Discussion, 984.
Cooley, Edwin G.—Member of Committee on Salaries, etc., 377.
Cooley, Frank W.—Avenues of Language-Expression in the Elementary School, 464.
Cooper, Frank B.—Memorial Address on Reuben S. Bingham, 368.
Co-ordinate Method in Education, 547.
Coppock, Benjamin S.—Discussion, 982.
Coulter, S. M.—Discussion, 863.
Council, National, Constitution, 333; Officers of, for 1903–4, 335; for 1904–5, 336; Committees of, 336; Members of, 336; Secretary's Minutes, 338.
Country Schools, What May Be Done for Manual Training in, 623.
County Superintendents, Round Table of State and, 306.
Course of Study in Elementary and Secondary Schools, The: I, The Superintendent's Influence on the Course of Study—W. H. Elson, 188; II, What Omissions Are Advisable in the Present Course of Study, and What Should Be the Basis for the Same—Frank M. McMurry, 194; Discussion, 202.
Course of Study in English, Report of Subcommittee on, 505.
Course of Study and System of Grading, Improvements in, 316.

Creed, Our Educational, 104.
Criminal Tendencies and the Juvenile Court—Charles W. Waddle, 797.
Crosby, W. E.—Discussion, 495.
Crunden, F. M.—Discussion, 931.
Curtis, Chester B.—Discussion, 857.
Curtis, Natalie—Indian Music and Indian Education, 979.
Cushman, Lillian S.—Secretary's Minutes, Department of Art Education, 631.
Dabney, Charles W.—Educational Principles for the South, 235.
Davis, Miss Jessie—Acting Secretary, Department of Child Study, 738.
Deaf and Blind, Model School for the, 937.
Declaration by Committee on Resolutions, 30.
Defective Sight and Hearing of Public School Children, 946.
Departments, List of, 1.
Department Officers, List for 1903–4, 10; for 1904–5, 14.
Department of Art Education, 631; of Business Education, 709; of Child Study, 737; of Council of Education, 333; of Elementary Education, 379; of Higher Education, 537; of Indian Education, 963; of Kindergarten Education, 379; of Library, 911; of Manual Training, 593; of Music Education, 675; of Normal Schools, 567; of Physical Education, 803; of School Administration, 897; of Science Instruction, 843; of Secondary Education, 473; of Special Education, 933; of Superintendence, 173.
Dexter, E. G.—Discussion, 802.
Diagnosis of the Capabilities of School Children—D. P. MacMillan, 738.
Directors, How Elected, 2; Powers and Duties, 2.
Directors, Life, How Elected, 2; List of, for 1903–4, 8; List of, for 1904–5, 12.
Directors, List of, for 1903–4, 9; List for 1904–5, 13.
Discussions at Round Table Conferences, Indian Department, 982.
Discussion of Points Gained from the Educational Exhibits and the Model Schools of the Exposition, 982.
District School Libraries, The Duty of the Normal School in Relation to, 919.
Dobbs, Miss Ella V.—Report on Work as Shown by Exhibits from Pacific Coast, 607.
Dockery, A. M.—Address of Welcome, 964.
Dopp, Katharine E.—The Natural Activities of Children as Determining the Industries in Early Education, 437.
Downen, J. M.—Discussion, 491.
Doyle, John T.—Efficiency in the Indian Service, 977; Response to Addresses of Welcome, 974.
Drawing, Construction, and Design, New York City Exhibition of Work in, 610.
Duluth Public Schools—Eye and Ear Examinations, 949.
Dutton, Samuel T.—The Expediency of Importing Teachers of Approved Merit from Without a Town or City, 322.
Duty of the Normal School in Relation to District School Libraries—Jasper N. Wilkinson, 919; Discussion, 923.
Earnest, W. W.—Discussion, 509.
Edson, Andrew W.—Some City Exhibits; Their Purpose and Plan—The City of New York, 185.
Education Adult, 284; The Constructive Idea in, 594; The Ethical Element in, 249.
Education in the American Navy—Caspar F. Goodrich, 120.
Education for Artistic Handicraft in Sweden—Carl Lidman, 667.
Education in England, Popular, 83.
Education in Japan, Relation of the Japanese Exhibit to, 354.
Education in the Philippines—E. B. Bryan, 100; A Filipino's View of, 468.
Education in Porto Rico—Samuel McCune Lindsay, 127.
Education of the Southern Negro—Booker T. Washington, 128.
Education at the Universal Exposition, 1904; I, From the View-Point of the Chief of the Department—Howard J. Rogers, 179; II, Exhibit of the United States Bureau of Education—W. T. Harris, 183; III, Some City Exhibits: Their Purpose and Plan; A., St. Louis—F. Louis Soldan, 184; B., The City of New York—Andrew W. Edson, 185.
Educational Exhibits and Model Schools of the Exposition, 982.
Educational Influence of Public Outdoor Art—George E. Gay, 665.
Educational Needs of the South—J. H. Phillips, 94.
Educational Possibilities for the Country Child in the United States—O. J. Kern, 89.
Educational Principles for the South—I, Charles W. Dabney, 235; II, Charles D. McIver, 242.
Effects of Athletics on the Morale of the College, The—Frank Strong, 564.
Efficiency in the Indian Service—John T. Doyle, 977.
Elective Course in High School Music, 703.
Elementary Education, Department of, 379.
Elementary Schools, Course of Study in, 188; The French and German, 404.
Ellis, A. Caswell—Discussion, 395, 575.
Elson, W. H.—The Superintendent's Influence on the Course of Study, 188.
Emerson, Henry P.—President, Department of Superintendence, 173.
England, Art Education in, 659; Popular Education in, 83.
English as an Art Study—William Schuyler, 502.

English Composition, Laboratory Method in, 506.
English Conference, 502.
Ethical Element in Education, The—Walter B. Hill, 249.
EVANS, LAWTON B.—The Factory Child, 244.
Evening Schools, The Organization of a System of, 278.
Everett, Miss L. B.—Discussion, 509.
Executive Committee, How Constituted, 2; Members of, for 1903–4, 8; for 1904–5, 12.
Exhibit of the Bradley Polytechnic Institute, 612.
Exhibit at the St. Louis Exposition of Private Commercial Schools, 714.
Exhibits of High Schools and Colleges, 849.
Exhibits from Indianapolis, Ind., Report on Work in Manual Training Shown by, 605.
Exhibits from Pacific Coast, Report on Work as Shown by Exhibits from, 607.
Exhibits, Physical Training, 836.
Exhibits, Reports on Work as Shown by the, 603.
Expediency of Importing Teachers of Approved Merit from Without a Town or City—Samuel T. Dutton, 322.
Expert Supervision—Isaac W. Hill, 321.
Exposition as an Art Educator, 632.
Exposition, Architecture of the, 167; Art Exhibits in the, 157; Lessons of the, 345; Sculpture and Decoration at the, 163.
Extension of Public-School Privileges: I, The Organization of a System of Evening Schools—Thomas M. Balliet, 278; II, Adult Education—Henry M. Leipziger, 284; III, University Extension for Teachers in Service—R. H. Halsey, 294; IV, Vacation Schools, Playgrounds, and Recreation Centers—Miss Evangeline E. Whitney, 298; Discussion, 303.
Eye and Ear Examinations, 949, 950.
Factory Child, The—Lawton B. Evans, 244.
FALL, DELOS—Improvements in Course of Study and System of Grading, 316.
FARRINGTON, FREDERICK ERNEST—The French and German Elementary Schools, 404.
FAUNCE, WILLIAM H. P.—Character in Athletics, 558.
Filipino's View of Education in the Philippines, A—Senora Maria del Pilar Zamora, 468.
Fisher, Mr.—Discussion, 522.
FISKE, WILBUR A.—President, Department of Science Instruction, 843.
FITZPATRICK. FRANK A.—President, National Council, 338.
Foerste, August F.—Discussion, 871.
FOLEY, ARTHUR L.—The Subject-Matter of High-School Physics, 865.
FORBES, S. A.—The Teaching of the Scientific Method, 879.
France—A Nation of Art, 643.
FRANCIS, DAVID R.—Address of Welcome, 50, 966.
FRENCH, JOHN S.—What Study of Mathematics Is Needed by the Man of Average Education for Practical Life? 510; Discussion, 521.
French and German Elementary Schools—Frederick Ernest Farrington, 404.
French Secondary Education *versus* Secondary Schools of the United States, 475.
FRUCHTE, MISS AMELIA C.—Address of Welcome, 970.
Function of Grammar in the Teaching of Modern Language, The—Fred Davis Aldrich, 525; Discussion, 528.
Gambrill, J. M.—Discussion, 509.
GATES, GEORGE A.—The Place of the Small College, 134.
GAY, GEORGE E.—The Educational Influence of Public Outdoor Art, 665.
General Sessions, 43.
General Tendency of College Athletics—E. Benjamin Andrews, 549.
Geography, Applied, 853; Out-of-Door Work in, 583.
German and French Elementary Schools, 404.
German Secondary Education *versus* Secondary Schools of the United States, 478.
Germany, Art Education for the People in, 648.
Germany, The Preparation of Teachers in, 140.
Giddings, Franklin H.—Member of Committee on Salaries, etc., 377.
Gideon, A.—Discussion, 536.
GILBERT, C. B.—The Elementary School as Illustrated in Its Exhibit, 389; Manual-Training High Schools or Manual Training in High Schools, 614.
GLENNON, JOHN J.—Address of Welcome, 971.
Goggin, Catharine—Member of Committee on Salaries, etc., 377.
GOODRICH, CASPAR F.—Education in the American Navy, 120.
GOVE, AARON—Limitations of the Superintendent's Authority and of the Teacher's Independence, 152.
Grades, Child Study in the, 797.
Grading, Improvements in System of, 316.
Grammar Grade, Child Study in the, 797.
Grammar in the Teaching of Modern Language, The Function of, 525.
Graves, Miss Lilian—Discussion, 510.
GREEN, S. M.—What Teachers May Learn from the Model School for the Deaf and Blind and Their Exhibits, 937.
GROSZMANN, MAXIMILIAN P. E.—To What Extent May Atypical Children Be Successfully Educated in Our Public Schools? 754; Discussion, 802.
HAGER, ALBERT RALPH—The Philippine Teacher and the Philippine Educational Exhibit, 396.

HALEY, MARGARET A.—Why Teachers Should Organize, 145.
HALL, G. STANLEY—Coeducation, 538; In How Far May Child Psychology Take the Place of Adult Psychology or Rational Psychology in the Training of Teachers? 568; The Natural Activities of Children as Determining the Industries in Early Education, 443; Unsolved Problems of Child Study and the Method of Their Attack, 782.
HALLECK, REUBER POST—President, Department of Secondary Education, 473.
HALSEY, R. H.—Member of Committee on Salaries, etc., 377; University Extension for Teachers in Service, 294.
Handicraft in Sweden, Education for Artistic, 667.
Handwork in connection with Art, 603.
HARRIS, MISS ADA VAN STONE—President, Department of Elementary Education, 380.
HARRIS, W. T.—Exhibit of the United States Bureau of Education, 183; Herbert Spencer and His Influence on Education, 214; Response to Address of Welcome, 55.
HARRISON, MISS ELIZABETH—The Study of Children by Means of Their Handiwork, 792; Discussion, 431.
HARVEY, ANNA E.—The Value of Animal Pets in the Kindergarten, 432.
HARVEY, LORENZO D.—The Natural Activities of Children as Determining the Industries in Early Education, 447.
Hastings, Montana—Secretary's Minutes, Department of Normal Schools, 567; Discussion, 590.
HATCH, WILLIAM EDWIN—Memorial Address on Frank Alpine Hill, 365.
Hayden, P. C.—Secretary's Minutes, Department of Music Education, 677.
Hedrick, E. R.—Discussion, 521.
HENKEL, MISS ANNA VANDALAINE—Art Education for the American People, as Shown at the Louisiana Purchase Exposition in the Normal Schools, Art Schools, and Art Handicraft, 670.
Herbert Spencer: I, His Influence on Education—W. T. Harris, 214; II, His Four Famous Essays—John W. Cook, 223; III, His Individuality as Manifested in His Educational Thinking—W. S. Sutton, 226; IV, As an Educational Force, A. E. Winship, 230; V, As a Philosopher, W. Rose, 231.
HERRICK, CHEESMAN A.—Old Wine in New Bottles, 710; President, Department of Business Education, 709.
High School—How Should It be Modified to Meet Twentieth-Century Demands? 491.
High School, Microscope in the Biological Laboratory of the, 859.
High-School Music Course, Report of Co-operative Committees on, 702.
High-School Music Elective Course, 703.
High-School Physics, The Subject-Matter of, 865.
High Schools, Manual Training, 614.
High Schools, Secret Fraternities in, 484.
Higher Education, Department of, 537.
Higher Education in the United States, The Relation of the Church to, 68.
Higher Standards in the Employment of Teachers—I, Francis P. Venable, 319; II, M. L. Brittain, 320.
HILL, FRANK ALPINE,†—William Edwin Hatch, 365.
HILL, ISAAC W.—Expert Supervision, 321.
HILL, MISS PATTY S.—The Kindergarten as Illustrated in Its Exhibit, 383.
HILL, WALTER B.—The Ethical Element in Education, 249.
Hinemon, John H.—Secretary's Minutes, Department of Superintendence, 177.
Hinshaw, E. B.—Discussion, 984.
HODGDON, W. A.—Rote-Singing and Its Proper Place in the Public Schools—Practice *versus* Theory, 685.
HOLLAND, E. O.—Report of the Subcommittee on the Course of Study in English, 505.
HOPKINS, JAMES FREDERICK—The Influence of a Great Exposition as an Art Educator, 632; President, Department of Art Education, 631.
HORN, P. W.—Child Study in the Grades, 797.
HOWE, MISS ANNIE L.—The Kindergarten in Japan, 398.
Howe, George H.—Discussion, 521.
How Much Mathematics Should the Physics Teacher Teach?—Willis E. Tower, 516; Discussion, 521.
HUNSICKER, B. F.—President, Department of School Administration, 897; Retrospective and Prospective School Administrations, 897.
HYDE, MISS MARY B.—Possibilities of Art in Connection with Hand-Work, as Shown by Exhibits from the Teachers College, New York City, 603.
Hygiene of the Kindergarten Child, The—William H. Burnham, 416.
Illustrated Aids to the Teaching of Modern Language, with Special Reference to the Teaching of German—J. Perry Worden, 533; Discussion, 536.
Importance of Walking as a School Exercise—E. Hermann Arnold, 804.
Improvements in Course of Study and System of Grading—Delos Fall, 316.
Income from Permanent Fund, Statement of, 19.
Incorporation, Certificate of, 5.
Increasing the Efficiency of Rural Schools —Arthur Lefevre, 309.
Indian Education, Department of, 963.
Indian Music and Indian Education—Natalie Curtis, 979.
Indian Service, Efficiency in the, 977.

Individual Child, The—Miss Bertha Payne, 422.
Individualism, The Need of a New, 62.
Influence of the Art School and Art Museum on Civic Life—Edmund H. Wuerpel, 637.
Influence of a Great Exposition as an Art Educator—James Frederick Hopkins, 632.
In How Far May Child Psychology Take the Place of Adult Psychology or Rational Psychology in the Training of Teachers? I, G. Stanley Hall, 568; II, E. H. Russell, 571; Discussion, 575.
In What Respects Should the High School Be Modified to Meet Twentieth-Century Demands? I, J. Stanley Brown, 491; Discussion, 495; II, William L. Bryan, 496; III, B. F. Buck, 496.
Investigations and Appropriations, Committee on, Members of, 336; Report of 338.
ITTNER, WILLIAM B.—The School Architecture of St. Louis, 901.
IVES, HALSEY C.—Art Exhibits in the Exposition, 157.
JACKMAN, WILBUR S.—The Constructive Idea in Education, 594.
JAMES, EDMUND J.—The Relation of the Church to Higher Education in the United States, 68; Discussion, 716.
Japan, The Kindergarten in, 398.
Japanese Exhibit and its Relation to Education in Japan—Mosuke Matsumura, 354.
JEFFERSON, MARK S. W.—Out-of-Door Work in Geography, 583.
JESSE, R. H.—Coeducation as It Has Been Tested in State Universities, 542; Objects and Methods of Physical Training in Colleges and Universities, 822.
JOHNSON, W. E.—Rapid Reading, 528; Discussion, 490, 532.
Joint Session of Kindergarten and Elementary Departments, 381.
JONES, J. W.—President, Department of Special Education, 933; Presidential Address, 934.
JONES, LEWIS H.—President, Department of Normal Schools, 567.
Journal of Proceedings, 23.
JOYNER, J. Y.—Consolidation of Schools, 313.
Julian, Paph—Discussion, 983.
Juvenile Court, 797.
Keeler, Harriet L.—Discussion, 509.
KENDALL, C. N.—The Management of Special Departments, 271.
KERN, O. J.—Educational Possibilities for the Country Child in the United States, 89.
Key-Notation for Indicating Pronunciation, Report of Committee on a Uniform System of, 175.
Kindergarten Child, Hygiene of the, 416.
Kindergarten, Child Study in, 791, 794.
Kindergarten Discipline, What Is, 427.
Kindergarten Education, Department of, 379.
Kindergarten and the Elementary School as Illustrated in Their Exhibits: I, From the Kindergarten Standpoint—Miss Patty S. Hill, 383; II, From the Standpoint of the School—C. B. Gilbert, 389; Discussion, 395.
Kindergarten in Japan, The—Miss Annie L. Howe, 398.
Kindergartens in the Southern States, and in Some of the Countries South of the United States—Miss Eveline A. Waldo, 411.
Kirchner, Elida — Secretary's Minutes, Modern Language Conference, 473.
KIRKPATRICK, E. A.—President, Department of Child Study, 737.
Klemm, Mrs.—Discussion, 522.
KLINE, LINUS W.—The Contributions of Zoölogical Psychology to Child Study, 776; Discussion, 801.
Knight, R. F.—Discussion, 521, 522.
Knight, Thomas H. H.—Secretary's Minutes, Department of Business Education, 710.
KNOX, GEORGE PLATT—The Nature and Educational Value of the Scientific Exhibits of High Schools and Colleges of the United States, 849.
Laboratory Method in English Composition—Philo Melvyn Buck, 506; Discussion, 508.
Laboratory Tests as a Means of Child Study—Miss Mabel Clare Williams, 770.
LACHMUND, MRS. FANNIE—Address of Welcome, 381.
LAGERSTEDT, N. G. W.—The Swedish Educational Exhibit and Its Relation to the Schools of Sweden, 349.
Lawson, Florence—Discussion, 432.
Leavitt, Frank M.—Secretary's Minutes, Department of Manual Training, 593.
LEFEVRE, ARTHUR—Increasing the Efficiency of Rural Schools, 309.
LEIPZIGER, HENRY M.—Adult Education, 284.
Lemmon, T. G.—Discussion, 984.
Lessons of the Exposition, The—Howard J. Rogers, 345.
Lessons in School Administration to Be Gained at the Fair—Calvin M. Woodward, 907.
Library Department, 911.
Library, Normal School in Relation to the, 914.
Library in Public School Work, 912.
Library in School Instruction, The Place of the, 924.
Library Work in Normal Schools—Theodore B. Noss, 912; Discussion, 917.
LIDMAN, CARL—Education for Artistic Handicraft in Sweden, 667; Manual Training in Sweden, 600.
Limitations of the Superintendent's Authority and of the Teacher's Independence—Aaron Gove, 152.

LINDSAY, SAMUEL MCCUNE—Education in Porto Rico, 127.
LONG, DELLA JUSTINE—Avenues of Language-Expression in the Elementary School, 459.
Lough, James E.—Secretary's Minutes, Department of Higher Education, 537.
Louisiana Purchase, Applied Geography Illustrated from the, 853.
LUDLUM, MRS. MARY H.—Acting Secretary, Department of Physical Education, 804; Objects and Methods of Physical Training in High Schools—From the Standpoint of the Specialist, 827.
LYTTLE, E. W.—What May the Secondary Schools of the United States Learn from a Study of French Secondary Education, 475; Discussion, 490.
Macdougall, H. C.—Chairman of Co-operative Committees of Music Associations, 707.
MACMILLAN, D. P.—The Diagnosis of the Capabilities of School Children, 738.
Management of Special Departments, The —C. N. Kendall, 271.
MANN, MISS MARY IDA—Physical Training Exhibits in the Education Building of the Exposition, 836.
Manual Training in Country Schools, What May Be Done for? 623.
Manual Training, Department of, 593; Report of Work Shown by Exhibits from Indianapolis, Ind., 605.
Manual Training High Schools or Manual Training in High Schools—Charles B. Gilbert, 614; Discussion, 619.
Manual Training in Sweden—Carl Lidman, 600.
MARDUEL, JEAN—The Republic of France —A Nation of Art, 643.
Mark, E. H.—Discussion, 202.
Marsh, Clinton S.—Discussion, 205.
MARSHALL, CARL C.—The Work of the Private Commercial Schools, as Illustrated in the Exhibits at the St. Louis Exposition, 714.
Mathematics Conference, 510; Discussion, 521.
Mathematics—How Much Should the Physics Teacher Teach? 516; Least Amount that Should Be in Any Secondary School Course, 514.
Mathematics Needed by the Man of Average Education for Practical Life, 510.
Mathematics, Real Problem of the Teacher of, 518; Unification of Secondary, 519.
MATSUMURA, MOSUKE—The Japanese Exhibit and Its Relation to Education in Japan, 354.
MAXWELL, WILLIAM H.—The Superintendent as a Man of Affairs, 259.
McAndrew, William—Member of Committee on Salaries, etc., 377.
MCCOWAN, S. M.—Response to Addresses of Welcome, 976; Discussion, 984.
MCGEE, W J—Response to Addresses of Welcome, 972.
MCIVER, CHARLES D.—Educational Principles for the South, 242; Response to Address of Welcome, 59.
McKoin, John J.—Discussion, 983.
MCMURRY, FRANK M.—What Omissions Are Advisable in the Present Course of Study, and What Should Be the Basis for the Same? 194.
Meetings, Constitutional Provisions for, 3.
MELENEY, CLARENCE E.—Report of the New York City Exhibition of Work in Drawing, Construction, and Design, 610; The Place of the Library in School Instruction, 924.
Members, Classes of, 1.
Members of the Council, Elected by Board of Directors, 40.
Members of Council Elected in 1904, 344.
Membership, Conditions of, 1.
Members of National Council, How Chosen, 333.
Memorial Addresses, 361.
MERRILL, JERRY B.—President, Departmentof Kindergarten Education, 380; Discussion, 432.
Method of Child Study in the Kindergarten —Miss Luella A. Palmer, 794.
Methods of Child Study, 762.
Methods, Primary Music, 681.
Methods of Science Instruction of the Various Countries, 844.
Methods of Teaching Child Study in Normal Schools—Miss Anna Buckbee, 787.
Methods *versus* Results—W. H. Pommer, 696.
Microscope in the Biological Laboratory of the High School, The—John F. Thompson, 859; Discussion, 863.
Miller, James M.—Discussion, 510.
MILLER, MARY JEAN—What is Kindergarten Discipline? 427.
Mills, Miss Esther—Discussion, 509.
Milner, Miss Ange V.—Discussion, 930.
Minutes of Annual Business Meeting of Active Members, 25.
Minutes of Meeting of Board of Directors, for 1903–4, 32; for 1904–5, 38.
Model School for the Deaf and Blind, 937.
Modern Language Conference, 522.
Modern Language, The Function of Grammar in the Teaching of, 525; With Special Reference to German, 533.
Modern Language Study in Our Secondary Schools, The Aim of, 522.
Modern Languages, Conversation as a Vehicle of Instruction in, 532.
MONROE, WILL S.—Typical Child-Study Methods at the St. Louis Exhibit, 759.
Moore, Robert Webber—Discussion, 524, 536.
MORRISON, GILBERT B.—Secret Fraternities in High Schools, 484; Discussion, 490.
Music Education, Department of, 675.

Music in High School, Elective Course, 703.
Music Methods, Primary, 681.
Music in the Public Schools a Means of Culture in the Community—Miss Lucy Robinson, 692.
Music Supervisor and His Relations to Professional Musicians and Educators, 699.
Music Teachers' National Association, 702.
NAGEL, FRANK—The Public School Music Supervisor in His Relations to the Professional Musicians and the Professional Educators, 699.
Nardin, E. C.—Discussion, 982.
Nash, G. W.—Discussion, 307.
National Council of Education, 333; Constitution of, 333; Officers of, for 1903–4; 335; for 1904–5, 336; Committees of, 336; Members of, 336; Secretary's Minutes, 338.
Nature and Educational Value of the Scientific Exhibits of High Schools and Colleges of the United States—George Platt Knox, 849.
Nature Study as an Aid to Advanced Work in Science—E. R. Whitney, 889; Discussion, 894.
Natural Activities of Children as Determining the Industries in Early Education: I, Katherine E. Dopp, 437; II, G. Stanley Hall, 443; III, Lorenzo D. Harvey, 447.
Navy, Education in the American, 120.
Neal, George W.—Discussion, 533.
Need of a New Individualism, The—John W. Cook, 62.
Negro, The Education of the Southern, 128.
Nelson, B. E.—Discussion, 303.
Nervous and Delicate Children, The Chicago Hospital School for, 952.
New Departure in Secondary Education, The—J. J. Sheppard, 114.
Nominations, Committee on, Members of, 24; Report of, 26.
Normal Schools, Department of, 567; Library Work in, 912; Methods of Teaching Child Study in, 787.
Normal School in Relation to the Library, 914.
NOSS, THEODORE B.—Library Work in Normal Schools, 912.
Objects and Methods of Physical Training in Colleges and Universities—R. H. Jesse, 822.
Objects and Methods of Physical Training in High Schools—From the Standpoint of the Specialist—Mrs. Mary H. Ludlum, 827.
Object and Methods of Physical Training in Normal Schools—G. B. Affleck, 817.
Objects and Methods of Physical Training in Primary and Grammar Schools—From the Standpoint of the General Teacher—W. W. Chalmers, 807.
Objects and Methods of Physical Training in Primary and Grammar Schools—From the Standpoint of the Physical Training Teacher—William A. Stecher, 810.
O'Connell, Monsignor D., Remarks by, 29.
Officers, Constitutional Provisions for, 2; Method of Election, 2.
Officers of the General Association for 1903–4, 8; for 1904–5, 12.
Old Wine in New Bottles—Cheesman A. Herrick, 710.
Olmstead, Emma G.—Secretary's Minutes, Department of Elementary Education, 380.
Organization for Art Education in England—Percy Atkin, 659.
Organization of a System of Evening Schools, The, 278.
Our Educational Creed—Z. X. Snyder, 104.
Out-of-Door Work in Geography—Mark S. W. Jefferson, 583; Discussion, 588.
Pacific Coast, Report on Work as Shown by Exhibits from, 607.
PALMER, MISS LUELLA A.—Method of Child Study in the Kindergarten, 794.
PARKER, BERTRAND DER.—The Report of the Committee of Nine, from the Standpoint of the General High School, 725.
PARR, MRS. MARIE BURT—Primary Music Methods, 681.
PAYNE, MISS BERTHA—The Individual Child, 422.
Pensions of Teachers, 370.
Permanent Fund, Statement of, 18.
Perrin, Miss F. R.—Discussion, 599.
PHILLIPS, J. H.—Educational Needs of the South, 94; Discussion, 203.
Philippine Educational Exhibit, and the Philippine Teacher, 396.
Philippine Teacher and the Philippine Educational Exhibit—Albert Ralph Hager, 396.
Philippines, Education in the, 100.
Philippines, A Filipino's View of Education in the, 468.
Physical Education, Department of, 803.
Physical Training in Colleges and Universities, 822.
Physical Training Exhibits in the Education Building of the Exposition—Miss Mary Ida Mann, 836.
Physical Training Exhibits in the Physical Training Department of the Exposition—Miss Elsa Pohl, 832.
Physical Training in High Schools, 827.
Physical Training in Normal Schools, 817.
Physical Training in Primary and Grammar Schools, 807, 810.
Physics, High School, 865.
Physiological Psychology? What Is the Net Gain to Education of Recent Investigations in, 576.
Place of the Library in School Instruction—Clarence E. Meleney, 924; Discussion, 930.

Place of the Small College, The—George A. Gates, 134.
POHL, MISS ELSA—Physical Training Exhibits in the Physical Training Department of the Exposition, 832.
POMMER, W. H.—Methods *versus* Results, 696.
Popular Education in England—Percy Atkin, 83.
Porto Rico, Education in, 127.
POWELL, WILLIAM BRAMWELL,†—John W. Cook, 361.
Preliminary Report of Committee on Salaries, Tenure and Pensions of Teachers—Carroll D. Wright, 370.
Preparation of Teachers in Germany—Leopold Bahlsen, 140.
President's Address, Department of Business Education—Cheesman A. Herrick, 710.
President's Address, Department of Music Education—William A. Wetzell, 678.
Presidential Address, Department of Special Education—J. W. Jones, 934.
Primary Grade, Child Study in, 791.
Primary Music Methods—Mrs. Marie Burt Parr, 681.
President's Address—John W. Cook, 62.
Proceedings, Journal of, 23.
Progress of the South, as Shown by Exhibits—Brown Ayres, 627.
Psychology, Child, Adult or Rational, 568, 571.
Psychology, Investigations in Physiological, 576.
Public School Children, Defective Sight and Hearing of, 946.
Public School Music Supervisor in His Relations to the Professional Musicians and the Professional Educators—Frank Nagel, 699.
Public School Work, The Library in, 912.
Questionnaire Methods of Child Study—Will Grant Chambers, 762.
Quinn, John B.—Secretary's Minutes, Mathematics Conference, 473.
Rapid Reading—W. E. Johnson, 528; Discussion, 531.
Real Problem of the Teacher of Mathematics, The—Herbert E. Cobb, 518; Discussion, 521.
Recognition of Certificates and Diplomas Granted (*a*) by State and County Authorities, (*b*) by Schools of Education—L. E. Wolfe, 306.
Reel, Miss Estelle—Secretary's Minutes, Department of Indian Education, 964.
Relation of the Church to Higher Education in the United States, The—Edmund J. James, 68.
Relation of the Home to the Wayward Child—Oscar Chrisman, 800; Discussion, 801.
Report of Board of Trustees, 18.
Report of the Committee of Conference on a Uniform System of Key-Notation for Indicating Pronounciation, 175.
Report of the Committee of Nine—J. Remsen Bishop, 730; From the Standpoint of the General High School—Bertrand DeR. Parker, 725; From the Standpoint of the Independent School of Commerce—James J. Sheppard, 719.
Report of the Committee on Resolutions, General Sessions, 30; Department of Superintendence, 177.
Report of Committee on Salaries, Tenure, and Pensions of Teachers, 370.
Report of Committee on Simplifying Spelling, 34.
Report of the Committee on Statistics of Defective Sight and Hearing of Public School Children, 946.
Report of Conference of Co-operative Committees of Music Associations on a High-School Music Course, 702.
Report on the Exhibit of the Bradley Polytechinc Institute—Charles A. Bennett, 612.
Report of High School Music Elective Course, 703.
Report on the New York City Exhibition of Work in Drawing, Construction, and Design—Clarence E. Meleney, 610.
Report of Special Committee on Simplified Spelling, 174.
Report of Committee on Working Plans of Council, 343.
Report of the Subcommittee on the Course of Study in English—E. O. Holland, 505.
Report of Treasurer, 16.
Reports on Work as Shown by Exhibits: I, Possibilities of Art in Connection with Hand-Work, as Shown by Exhibits from the Teachers College, New York City—Miss Mary B. Hyde, 603; II, Report on Work in Manual Training as Shown by the Exhibits from Indianapolis, Ind.—Louis A. Bacon, 605; III, Report on Work as Shown by Exhibits from Pacific Coast—Miss Ella V. Dobbs, 607; IV, Report on the New York City Exhibition of Work in Drawing, Construction, and Design—Clarence A. Meleney, 610; V, Report on the Exhibit of the Bradley Polytechnic Institute—Charles A. Bennett, 612.
Republic of France—A Nation of Art—Jean Marduel, 643.
Resolution, Commemorative, of Council, 344.
Resolutions, Committee on, Members of, 23; Report of, 30.
Resolution from the Council Recommending Advisory Committee, 39.
Resolutions by the Council Recommending Appropriations, 39.
Resolutions on Plans for Simplifying Spelling, 34.
Resolution on Proposed Amendments to Constitution, 28.
Resolution on Reincorporation, 28.

Resolutions, Report of Committee on, Department of Superintendence, 177.
Responses to Addresses of Welcome—W. T. Harris, 55; Charles D. McIver, 59; W J McGee, 972; John T. Doyle, 974; Levi Chubbuck, 974; S. M. McCowan, 976.
Resources of the United States, as Illustrated by the Louisiana Purchase Exposition—Miss Minnie Bronson, 717.
Results *versus* Methods, 696.
Retrospective and Prospective School Administrations—B. F. Hunsicker, 897.
Reynolds, Miss Alice E.—The Assistant to the Superintendent—His Functions and Methods of Work, 264.
Reynolds, Miss Mabel M.—Discussion, 923.
Richeson, John—Discussion, 509.
Ridgley, D. C.—Discussion, 588.
Riley, Mrs. Matilda Evans—Art Education for the People, 654.
Robinson, Miss Lucy—Music in the Public Schools, 692.
Rogers, Miss Florence L.—Discussion, 509.
Rogers, Howard J.—Address of Welcome, 53, 967; Education at the Universal Exposition, 1904: From the View-Point of the Chief of the Department, 179; The Lessons of the Exposition, 345.
Rose, W.—Herbert Spencer as a Philosopher, 231.
Rote-Singing and Its Proper Place in the Public Schools—Practice *versus* Theory—W. A. Hodgdon, 685.
Round Table of City Superintendents, 179, 322.
Round Table of State and County Superintendents—Chairman, N. C. Schaeffer, 177; 306.
Round Table Conference on Child Study in Grammar and Secondary Grades, 797.
Round Table Conference on Child Study in Kindergarten and Primary Grades—Chairman, Miss Myra H. Winchester, 791.
Round Table Conferences, 502; Indian Department, 982.
Rules of Committee on Investigations and Appropriations, Amended, 344.
Rural Schools, Increasing the Efficiency of, 309.
Russell, E. H.—In How Far May Child Psychology Take the Place of Adult Psychology or Rational Psychology in the Training of Teachers? 571.
Salaries of Teachers, 370.
Salisbury, Albert—Discussion, 918.
Salisbury, Miss Grace E.—Discussion, 917.
Satolli, Cardinal—Remarks by, 29.
Schaeffer, N. C.—President, Library Department, 911; Chairman, Round Table of State and County Superintendents, 177; Discussion, 931.
School Administration, Department of, 897; Lessons in, 907.
School Administrations, Retrospective and Prospective, 897.
School Architecture of St. Louis—William B. Ittner, 901.
School Children, The Diagnosis of the Capabilities of, 738.
Schools, Consolidation of, 313.
Schools of Sweden, Relation of the Swedish Educational Exhibit to, 349.
Schuyler, William—English as an Art Study, 502; Secretary's Minutes, Department of Secondary Education, 473; Discussion, 490.
Science Education, Department of, 843.
Science Instruction, Methods of, 844.
Science, Nature Study as an Aid in, 889.
Scientific Exhibits of High Schools and Colleges of the United States, 849.
Scientific Method, Teaching of the, 879.
Scott, W.—Secretary of Co-operative Committees of Music Associations, 707.
Sculpture and Decoration at the Exposition—George Julian Zolnay, 163.
Secret Fraternities in High Schools—Gilbert B. Morrison, 484; Discussion, 490.
Secondary Education, Department of, 473; The New Departure in 114; The Value of Chemistry in, 872.
Secondary Grade, Child Study in, 797.
Secondary Mathematics, The Unification of, 519; The Aim of Modern Language Study in, 522; Athletics and Collateral Activities in, 206; Course of Study in, 188.
Secondary Schools of the United States *versus* French Secondary Schools, 475.
Secondary Schools of the United States *versus* German Secondary Education, 478.
Secretary's Minutes, Department of Art Education, 631; of Business Education, 709; of Child Study, 737; of Council of Education, 338; of Elementary Education, 380; of General Association, 23; of Higher Education, 537; of Indian Education, 963; of Kindergarten Education, 380; of Library, 911; of Manual Training, 593; of Music Education, 675; of Normal Schools, 567; of Physical Education, 803; of School Administration, 897; of Science Instruction, 843; of Secondary Education, 473; of Special Education, 933; of Superintendence, 173.
Secretary's Minutes, English Conference, 473; of Mathematics Conference, 473; of Modern Language Conference, 474; of Round Table of City Superintendents, 179; of State and County Superintendents, 177.
Senter, H. A.—Secretary's Minutes, Department of Science Education, 844; Discussion, 878.
Shepard, Irwin—Secretary's Minutes of General Association, 23; Minutes of Business Meeting of Active Members, 25; of Board of Directors for 1903–4, 32; of Board of Directors for 1904–5, 38.

SHEPPARD, JAMES J.—The New Departure in Secondary Education, 114; Report of the Committee of Nine, Considered from the Standpoint of the Independent School of Commerce, 719.
Should Teachers Be Required to Present from Time to Time Evidences of Increased Scholarship?—Walter H. Small, 326; Discussion, 330.
Sight and Hearing in Relation to Education—Oscar Chrisman, 939.
Sight and Hearing Tests, Table of, 951.
Sime, Miss Diana—Discussion, 510; Simplified Spelling, Report of Committee on, 34.
Sinclair, J. A.—Discussion, 982.
SMALL, WALTER H.—Should Teachers be Required to Present from Time to Time Evidences of Increased Scholarship? 326.
Small College, The Place of the, 134.
Smith, Anna Tolman—Member of Committee on Salaries, etc., 377.
Smith, Charles H.—Discussion, 521.
SMITH, GEORGE ARTHUR—The Aim of Modern Language Study in Our Secondary Schools, 522; Discussion, 533.
Smiley, W. H.—Discussion, 490, 522.
SNYDER, Z. X.—Our Educational Creed, 104.
SOLDAN, F. LOUIS—Address of Welcome, 47, 969; Some City Exhibits: Their Purpose and Plan—St. Louis, 184.
Some Laboratory Investigations of Subnormal Children—Mary R. Campbell, 744.
South, Educational Needs of the, 94; Progress of the, 627.
Southern States, The Kindergartens in the, 411.
Special Departments, The Management of, 271.
Special Education, Department of, 933.
Spelling, Report of Committee on Simplified, 174.
Spencer, Robert C.—Discussion, 716.
Springer, D. W.—Discussion, 736.
State and County Superintendents, Round Table of, 177, 306.
STECHER, WILLIAM A.—The Objects and Methods of Physical Training in Primary and Grammar Schools—From the Standpoint of the Physical Training Teacher, 810.
St. Louis, The School Architecture of, 901.
St. Louis Exhibit, Typical Child-Study Methods at, 759.
Stockwell, W. L.—Secretary's Minutes, Round Table of State and County Superintendents, 177.
STRONG, FRANK—The Effects of Athletics on the Morale of the College, 564.
Study of Children by Means of Their Hand-Work, The—Miss Elizabeth Harrison, 792.
Subnormal Children, Some Laboratory Investigations of, 744.
Subcommittee on the Course of Study in English, 505.
Subject-Matter of High-School Physics-Arthur L. Foley, 865; Discussion, 871.
Superintendence, Department of, 173.
Superintendent as a Man of Affairs, 259.
Superintendent's Authority, Limitations of the, 152.
Superintendent's Influence on the Course of Study—W. H. Elson, 188.
Superintendents, Round Table of City, 179, 322; of State and County, 177, 306.
Supervision, Administration and, 259; Expert, 321.
SUTTON, W. S.—Herbert Spencer's Individuality as Manifested in His Educational Thinking, 226.
Sweden, Education for Artistic Handicraft in, 667; Manual Training in, 600.
Swedish Educational Exhibit and Its Relation to the Schools of Sweden—N. G. W. Lagerstedt, 349.
Table of Sight and Hearing Tests, 951.
Teachers in Germany, Preparation of, 140.
Teachers, Higher Standards in the Employment of, 319, 320.
Teachers' Independence—Limitations of the, 152.
Teachers in Service, University Extension for, 294.
Teaching of the Scientific Method—S. A. Forbes, 879.
Tenure of Teachers, 370.
THOMPSON, JOHN F.—The Microscope in the Biological Laboratory of the High School, 859.
THWING, CHARLES F.—The Advantages of Co-ordinate (Annex) Method in Education, 547.
TINSLEY, SAMUEL B.—What is the Least Amount of Mathematics that Should Be in Any Secondary School Course? 514; Discussion, 522.
Treasurer, Annual Report of, 16.
Trustees, Board of, How Elected, Powers and Duties, 3.
Trustees, Report of Board of, 18.
TOWER, WILLIS E.—How Much Mathematics Should the Physics Teacher Teach? 516.
To What Extent May Atypical Children Be Successfully Educated in Our Public Schools—Maximilian P. E. Groszmann, 754.
Typical Child-Study Methods at the St. Louis Exhibit—Will S. Monroe, 759.
Twentieth-Century Demands—How Should the High School Be Modified to Meet? 491.
Unification of Secondary Mathematics, The—Clarence E. Comstock, 519; Discussion, 521.
United States, Resources of the, 717.
University Extension for Teachers in Service—R. H. Halsey, 294.

Unsolved Problems of Child Study and the Method of Their Attack—G. Stanley Hall, 782.
Updike, Miss Nina—Discussion, 509.
Vacation Schools, Playgrounds and Recreation Centers—Miss Evangeline E. Whitney, 298.
Value of Animal Pets in the Kindergarten—Anna E. Harvey, 432.
Value of Chemistry in Secondary Education, The—William M. Blanchard, 872; Discussion, 878.
Van Adestine, Elizabeth—Secretary's Minutes, Department of Special Education, 933.
Van Liew, Charles C.—What is the Net Gain to Education of Recent Investigations in Physiological Psychology? 576.
Van Sickle, J. H.—Discussion, 330.
Venable, Francis P.—Higher Standards in the Employment of Teachers, 319.
Vesper Meetings, Addresses at the, 155.
Waddle, Charles W.—Criminal Tendencies and the Juvenile Court, 797.
Waldo, Miss Eveline A.—The Kindergartens in the Southern States, and in Some of the Countries South of the United States, 411; Discussion, 432.
Walking as a School Exercise, The Importance of, 804.
Walker, Peleg R.—Discussion, 716.
Washington, Booker T.—The Education of the Southern Negro, 128.
Wayward Child, Relation of the Home to the, 800.
Waywardness in Children from Ten to Eighteen Years, 797.
Wells, Rolla—Address of Welcome, 49.
Wetzell, William A.—President's Address, Department of Music Education, 678.
What is Kindergarten Discipline?—Miss Mary Jean Miller, 427; Discussion, 431.
What is the Least Amount of Mathematics that Should Be in Any Secondary School Course?—Samuel B. Tinsley 514; Discussion, 521.
What May Be Done for Manual Training in Country Schools?—Alfred Bayliss, 623.
What May the Secondary Schools of the United States Learn from a Study of French Secondary Education?—E. W. Lyttle, 475.
What May the Secondary Schools of the United States Learn from a Study of German Secondary Education?—Frederick E. Bolton, 478.
What is the Net Gain to Education of Recent Investigations in Physiological Psychology?—Charles C. Van Liew, 576.
What Omissions are Advisable in the Present Course of Study, and What Should Be the Basis for the Same?—Frank M. McMurry, 194.
What Study of Mathematics is Needed by the Man of Average Education for Practical Life—John S. French, 510; Discussion, 521.
What Teachers May Learn from the Model School for the Deaf and Blind, and Their Exhibits—S. M. Green, 937.
Wheeler, Benjamin Ide—President, Department of Higher Education, 537.
Whitney, E. R.—Nature Study as an Aid to Advanced Work in Science, 889.
Why Teachers Should Organize—Margaret A. Haley, 145.
Wieland, Otto E.—Discussion, 528.
Wilde, Miss Frances—Discussion, 509.
Williams, Miss Mabel Clare—Laboratory Tests as a Means of Child Study, 770.
Winchester, Miss Myra H., Chairman—Round Table Conference on Child Study, 791.
Wilkinson, Jasper N.—The Duty of the Normal School in Relation to District School Libraries, 919.
Winship, A. E.—Herbert Spencer as an Educational Force, 230.
Winslow, W. H.—Discussion, 983.
Woodward, C. M.—Address of Welcome, 45, 968; Lessons in School Administration to Be Gained at the Fair, 907; Discussion, 619.
Worcester Public Schools—Eye and Ear Examinations, 950.
Worden, J. Perry—Illustrated Aids to the Teaching of Modern Language with Special Reference to the Teaching of German, 533; Discussion, 496, 532.
Wolfe, L. E.—The Recognition of Certificates and Diplomas Granted (*a*) by State and County Authorities, (*b*) by Schools of Education, 306.
Work of the Private Commercial Schools, as Illustrated in the Exhibits at the St. Louis Exposition—Carl C. Marshall, 714; Discussion, 716.
Wright, A. O.—Discussion, 985.
Wright, Carroll D.—Preliminary Report of Committee on Salaries, Tenure, and Pensions of Teachers, 370.
Wuerpel, Edmund H.—The Influence of the Art School and Art Museum on Civic Life, 637.
Zamora, Senora Maria del Pilar—A Filipino's View of Education in the Philippines, 468.
Zolnay, George Julian—Architecture of the Exposition, 167; Sculpture and Decoration at the Exposition, 163.
Zoölogical Psychology and Child Study, 776.